THE GREAT NEW PACKAGE FOR AMIGA OWNERS

AMIGA FORMAT

ISSUE 3 • OCTOBER 1989 • £2.95

COVERDISK 3



XENON 2

PLAYABLE DEMO OF THE SHOOT-EM-UP OF THE YEAR

PLUS

COMMS PACKAGE, ART GALLERY, MUSIC DEMO, WORKBENCH HACKS

NO AMIGA SUPERDISK?
DEMAND ONE FROM YOUR NEWSAGENT NOW!

MUSIC ALERT!

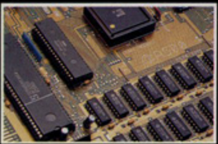
SOUND SENSATION FROM MUSIC X

DIGIPAINT 3 • ADVENTURES • EDUCATION • VIDI AMIGA


BATMAN is a shadow in the darkness, as elusive as a dream. High above the seamy streets of GOTHAM, he is a criminal's nightmare. The only hope for a desperate city – BATMAN.
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REGULARS



■ In Previews: *Knight Force*, out soon from Titus.



AMIGA FORMAT ISSUE 3 OCTOBER 1989

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■ The *Amiga Format* team, except for Jennie Evans Left to Right: Andy Smith, Bob Wade, Sally Meddings Jason Holborn, Trevor Gilham, Damien Noonan.

DISK EXTRA

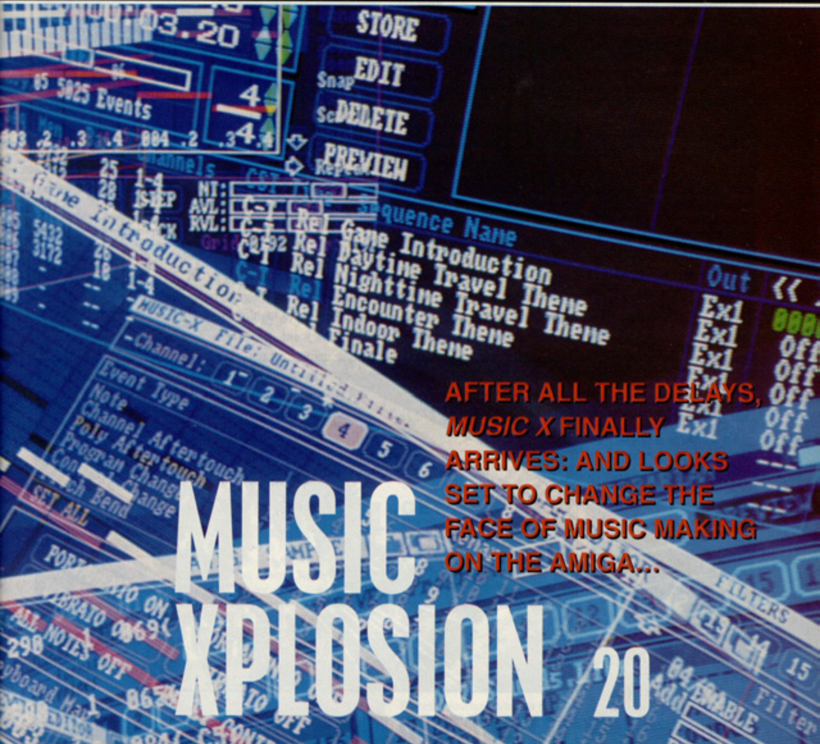
XENON II, MEGABLAST

Probably the best shoot-em-up in the world, and this month's playable demo

ACCESS!: excellent and beautifully-presented communications package • **DEMO CORNER:** chillin' music demo created especially for *Amiga Format* • **DPAINT CLIP ART:** for use in conjunction with our *DPaint* tutorial • **WORKBENCH HACKS:** two more fun hacks • **POPDIR:** Workbench diectory utility.

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MUSIC XPLOSION

AFTER ALL THE DELAYS, *MUSIC X* FINALLY ARRIVES: AND LOOKS SET TO CHANGE THE FACE OF MUSIC MAKING ON THE AMIGA...

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REVIEWS

SPECIALS

GAMES

FORMAT GOLD

REVIEWED

COMPETITION

THEATRE OF DREAMS

Manchester United Football Club have been much in the news lately for their expensive signings. Now they are making news on the Amiga as well, because of a game based on the club's exploits.

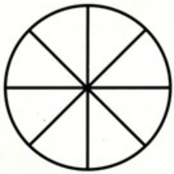
It is still early in production but promises a true-to-scale representation of *Old TraffordTheatre of Dreams*, produced on a scrolling area 15 screens in size. There's a lot of competition around for footie games at the moment: can Man Utd make it to the top of the league?



INSIGNIFICANT CHASE

It has been a long wait but the Amiga version of *Trivial Pursuit - Genus Edition* has arrived. Like the other computer versions it makes use of graphics and music for some of the trivia questions, to enhance the classic yuppie board game.

There are over 3,000 questions, all of them utterly pointless as is only right and proper. Out now from Domark at £24.99.



The yuppie game of the '80s makes it to the Amiga.

LONDON VIDEO ACCESS

If you have not been able to make head or tail of any of the articles about using Amigas in video and yet are interested in knowing more, perhaps you need the advice and assistance of London Video Access.

The LVA is a centre for artists working in video and has recently acquired two Amiga 2000s. This is so that, as well as providing cheap facilities and distribution for artists and independent video producers, they can give help to artists working in computer graphics.

For more information on the LVA facilities and courses, contact Clive Gillman on 01 734 7410 or write to him at 23 Frith Street, London W1V 5TS.

A COMPANY OF KITS

The Disc Company has announced two new compilations of programs called the *Home Office Kit* and the *Starter Kit*.

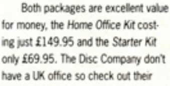
The Home Office Kit comprises a word-processor, DTP program, spreadsheet and database: all the essentials for working at home. The *Starter Kit* is aimed at first-time users looking to explore the potential of the Amiga and is made up of a word-processor, an art package and three games.

The word-processor in both kits is *KindWords 2.0*, which has a 100,000-word spelling checker and a 470,000-word thesaurus. The DTP program is *PageSetter 1.2*, which has previously been bundled with *KindWords* in the *Publisher's Choice* package, reviewed in last month's DTP special.

The spreadsheet is *Maxiplan 1.9* which has Lotus 123 compatibility and graphics capability. The database is *InfoFile*, ready equipped with 10 templates for databases for a video library, club membership manager and so on. Handy for the beginner.

The art program in the *Starter Kit* is *Fusion Paint* and the three games are *Crazy Cars, Super Ski and Miniature Golf*.

Both packages are excellent value for money, the *Home Office Kit* costing just £149.95 and the *Starter Kit* only £69.95. The Disc Company don't have a UK office so check out their advert in this issue for more details.



PageSetter and KindWords are just two of the programs available as part of the Home Office Kit.



YET ANOTHER DIGITISER!

New from Power Computing is *Videon*, a full-colour digitiser. *Videon* is a powerful software/hardware combination that allows you to digitise images from any colour video source without having to purchase a separate RGB splitter. *Videon* employs digital filtering to allow the most detailed grabs possible.

Using a special bypass system, *Videon* allows you to view both the source video signal and the final grab on screen simultaneously, therefore avoiding the need for constant swapping of leads. Screen resolutions supported include high, medium and low in both standard or overscan mode.

Unfortunately, our review model turned up too late for this month's issue, but look out for the next issue of Amiga Format for a full review. For further info, contact Power Computing on 0234 273000.

ALL GENNED UP

MAXIgen **is a new genlock/coder providing 'broadcast quality' (the 'in' term in Amiga video) output. It's not cheap though, weighing in at £750.**

So what do you get for your money? Twin RGB and composite video output channels, video-only mode, Amiga graphics-only mode, key on background mode, key on foreground mode, burst switch and enough technical detail to explode all your diodes. More details from Applied Systems and Peripherals on 0724 280222.

FLYING EYE TO CAIRO

Logotron have come up with a novel promotion for their new game *Eye of Horus*. The game is an arcade adventure based on Egyptian myth and programmed by Denton Designs – responsible for games like *Where Time Stood Still* and *The Great Escape*. What better way to promote it than to send a lucky competition winner to Cairo, the capital of Egypt?

Each copy of the game will contain an entry form and, as well as the first prize of a week's holiday in Cairo for two, there are five runner-up prizes of ancient Egyptian tarot. The game should be out by the end of the month and the competition will close on 29th December. More from Logotron on 01 359 3594.



RETURN OF THE TRILOGY

The original *Star Wars* film is over 10 years old now, but the trilogy of films is still as popular as ever. So, it would seem, are the games that first appeared in the arcades and then as conversions from Domark, because they are being released as a compilation.

The first two games – *Star Wars* and *The Empire Strikes Back* – are vector graphic shoot-em-ups, while *Return of the Jedi* is a diagonally-scrolling shoot-em-up in the *Zaxxon* mould. All three games are available at just £24.99 from Domark. Tel: 01 780 2222.

BRITISH MUSIC FAIR

The biggest thing to hit the British Music Fair, besides the heatwave, was the *MusicX* stand (see review). Now under the wing of SDL distributors, who have opened a special music division, it was a colourful stand which had monitors at every conceivable angle and position.

There was no showing from Commodore, but other Amiga programs were on the MCM stand. Here the complete range of Dr T programs for the Amiga was on show, and MCM are promising *Master Tracks Pro* from Passport Systems in a week or two's time. Conspicuous by their absence were the Evenlode team who are launching several new programs, including the long-awaited *Steinberg Pro 24* for the Amiga. Soundbits were there, however, demonstrating the Comus range of sequencers (as rev-iewed last month) and demonstrating the new *ProScore* scoring package for £229.







FANTAVISION

As a result of the deal signed with Broderbund in the US, Domark have released the graphics program *Fantavision*. It was first reviewed back in ST/Amiga Format Issue 7, where it received a warm welcome, particularly for anyone new to animation.

Its main use is to create animated sequences via a process called 'tweening' which avoids the usual animation process of drawing every single frame in a movement. *Fantavision* is priced at £39.99 from Domark/Broderbund on 01 780 2222



Animate away with Fantavision.

GETTING DOWN TO BUSINESS

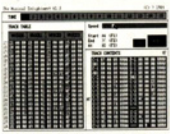
Arnor software have announced the impending release of *ProData*, a database management system to complement their popular word processor, *Protext*.

ProData will be available on several systems including both the PC and ST, and therefore (like *Protext*) provides complete data compatibility between these different makes of computer. You could for example, create your database on a PC, add records on your friend's ST and then use the finished system on an Amiga. Among *ProData*'s list of facilities are record filtering, password protection, macros, foreign language compatibility, file management and others. Arnor are on 0733 68909.

MUSICAL GURU

For many years, the infamous *Sound Tracker* utility has ruled supreme as the choice for programmers wishing to create scores for their creations. UGA Software, who are probably better known for their work within the Amiga PD scene, have produced *Musical Enlightenment*, a package that looks set to give Sound Tracker a run for its money.

Musical Enlightenment **provides powerful tools to allow the creation of tunes using a pattern based system similar to that used so well by *Sound Tracker*. As well as song creation, the program also includes complete sample manipulation tools to aid the creation of that perfect patch. UGA hope to release *Musical Enlightenment* in December for the impressive price of only £15. For further information, contact 17 Bit Software on 0294 366982.**





Devil dogs and the British museum – only Electronic Arts know the connection.

BARKING AGAIN

Last month's eerie note, which we received in the post reading "The Hound of Shadow is upon you and you bear his mark", was not followed by voodoo doggy dolls, but by an application form for membership of the British Museum reading room and a photo of same, circa 1920.

It's one of the better publicity stunts flying around at the moment, publicising Electronic Arts' game *Hound of Shadow*. Watch this space for next month's chilling instalment. There's bound to be one.

ANOTHER ABACUS BOOK?

Yes, it seems that not a single month goes by without Abacus Software releasing new products for the Amiga. This month sees the release of Abacus's latest book for boffins *Amiga Graphics Inside & Out* and for those of you worried with viral infections, Abacus have produced a disk/book combo in the shape of the *Virus Protection Toolkit*.

Amiga Graphics Inside & Out provides an in-depth look at the Amiga's powerful graphics system from a BASIC, C and Assembler standpoint. The book describes the individual elements of the Amiga's graphics system such as ViewPorts, RastPorts, screens and windows. For programmers, the book looks at new ways of accessing the graphics-related libraries and custom chips from the three major languages to produce HAM displays, colour patterns, screen and window dumps, blitter objects, copper lists and so forth.

Abacus's Virus Protection Toolkit is a complete Virus-busting package that provides an insight into how viruses work (including commented source code!), what problems viruses cause, how viruses lodge themselves into the Amiga system and how to cure your Amiga of viral infection.

COLLECTING CLIP ART

Anyone experiencing a clip art shortage is about to have their problem solved by seven disks of the stuff from Photofile.

It's mostly aimed at DTP users because it is all mono: but since all the clip art is in IFF format it can be used in just about any art program as well. The clip art is a collection imported from other machines and digitised on the Amiga itself. There are hundreds of pictures on the seven disks and the whole lot costs £35 from Photofile, PO Box 49, North PDO, Nottingham NG5 6SR. Tel: 0602 261498.

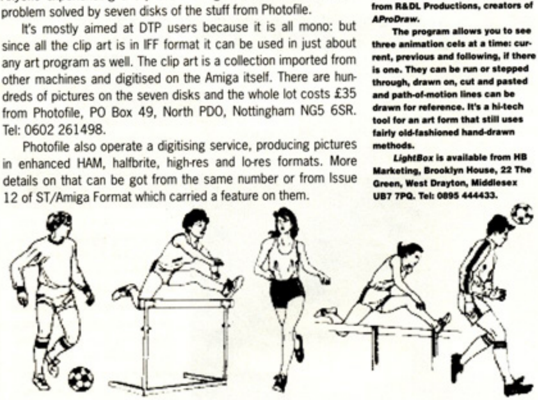
Photofile also operate a digitising service, producing pictures in enhanced HAM, halfbrite, high-res and lo-res formats. More details on that can be got from the same number or from Issue 12 of ST/Amiga Format which carried a feature on them.

LIGHT BOXING

LightBox **is a new tool for animators that has a very specific purpose: creating cel animations. It's aimed at the serious animator and comes from R&DL Productions, creators of *AProDraw*.**

The program allows you to see three animation cels at a time: current, previous and following, if there is one. They can be run or stepped through, drawn on, cut and pasted and path-of-motion lines can be drawn for reference. It's a hi-tech tool for an art form that still uses fairly old-fashioned hand-drawn methods.

LightBox **is available from HB Marketing, Brooklyn House, 22 The Green, West Drayton, Middlesex UB7 7PQ. Tel: 0895 444433.**



PC SHOW

Don't forget folks: the PC SHOW takes place on 30TH SEPTEMBER + 1ST OCTOBER at EARLS COURT.

Variable Dither - Computed internally at 30 bits per pixel (over one billion colors). Gives you over 100,000 apparent colors on screen.

Unmatched.

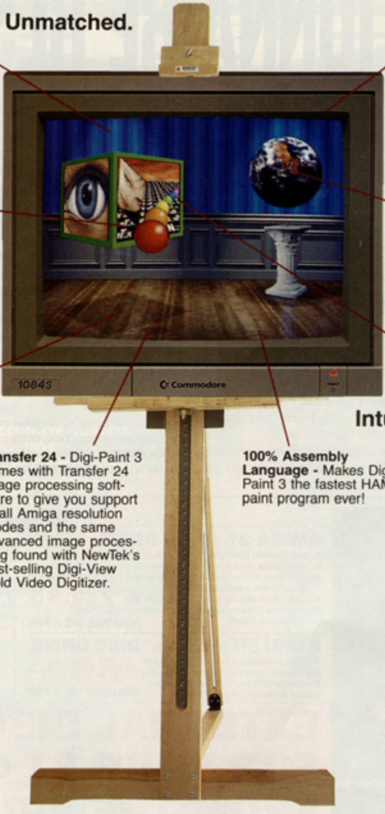
Super BitMaps with Auto-Scrolling - Real-time scrolling on up to 1024 pixels high or wide image with full overscan display.

Sophisticated.

Flexible Text Rendering - Allows for anti-aliased fonts, Rainbow Fonts and Transparent Fonts and more.

Flexible.

Colorize - Play Ted Turner and add color to black-and-white images or change colors on already colored images.



Revolutionary.

User-Controllable Transparency - Allows real time control of the amount of transparency and the location of the light source.

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QUESTIONNAIRE RESULTS

The last issue of ST/Amiga Format, our 'parent' magazine, contained a questionnaire so that we could find out exactly how to make this the best possible magazine for you. We printed some of the comments from them in Issue One and now we have the analysis, and the results of the competition.

The five lucky winners of a subscription to Amiga Format are: James McFadden, Monaghan, Ireland; Graham McLean, Cuckfield, West Sussex; AP Hovasse, London NW6; MD Weaver, Crowthorne, Berks; Paul Best, Bath, Avon.

The forms were revealing and very helpful. Sadly there was no surprise about gender: a mere **2% OF YOU ARE OF THE FEMALE** persuasion. Computing, it seems, remains a male bastion.

You're a mature bunch as well. **82% ARE OVER 17**, while the biggest chunk of 42% is in the 17-24 bracket. The fact that so many are old enough to work also shows up in the salary levels. **32% EARN MORE THAN £10,000 A YEAR**, so there is plenty of disposable income there for spending on hardware and software.

The top three newspapers were the **DAILY MIRROR AT 14%** and the Sun and Daily Mail at 10%. Fourth most popular was the first of the non-tabloids, The Guardian, at 7%.

No doubt about which of the Amiga models is most prevalent – **95% HAVE A500S**, but only 3% have A1000s and 2% A2000s. 35% also have another make of computer, so obviously a lot of people wanted to hang onto their old machine when upgrading to the Amiga.

Nearly everyone **(91%) HAS A JOYSTICK** and four other items are out there in large numbers – 54% have a monitor, 53% a printer, 46% a second drive and 41% a memory upgrade. The memory upgrade is the most popular intended purchase for the next year with 49%, then comes a second drive at 44%, hard drive at 38% and printer at 35%. On the software side 94% own games, 83% an art program, 54% a word processor and 40% a music program.

No surprise about what Amigas are used for – **56% FOR LEISURE**, 33% for creativity and only 12% for business.

The vast majority spend up to **£40 A MONTH ON COMPUTER GEAR** and over the next year the average planned spend is £346 on hardware, £140 on games, £77 on creative software and £67 on serious. That is over £600 spent per person next year, a massive amount of money.

When it came to rating the most popular sections there was only one possible winner, THE DISK. Also scoring very highly were WORKBENCH, software and hardware REVIEWS, SPECIALS, PD, NEWS and SCREENPLAY.

XENON 2

MEGABLAST

XENON II: MEGABLAST

XENON II: this time it's war!

The Xenites are back and have thrown time itself into turmoil, only you can save the day – not to mention the universe!

BATTLE through five VAST, graphically UNCANNY levels, DESTROYING wave after wave of EVIL aliens with the DOZENS of POWERFUL WEAPONS at your disposal.

XENON II: HARD, fast COIN-OP QUALITY destructive action with a HOT soundtrack to match. . . a mind blowingly accurate David Whittaker rendition of the 'Bomb The Bass' Megablast.

XENON II: it's out of this world!

XENON II: it's a Megablast!

XENON II: it's a Bitmap Brothers game!

Available Soon on Atari ST, AMIGA & PC.







Screen Shots From Atari ST Version.



image works

MEGABLAST written by Tim Simenon
Produced by Simenon Gabriel
Appears courtesy of Rhythm King Records
Published by Rhythm King Records

The BITMAP BROTHERS

MIRRORSOFT
Irwin House
118 Southwark Street London SE1 0SW
Tel: 01-928 1454 Fax: 01-583 3494

RHYTHM KING

Evesham Micros

All prices include VAT/delivery

AMIGA ACCESSORIES

A501 RAM/clock expansion for Amiga 500	£119.00
MiniGEN Genlock adapter	£95.00
Contriver Hi-Res Mouse, includes Mouse Mat & Pocket	£22.95
ITT CP3228 16.5" FST TV/Monitor inc. rem/control & cable	£229.00
Philips CM8833 colour monitor suitable for Amiga 500	£229.00
Philips CM8852 monitor as above, but higher resolution	£259.00
Philips TV Tuner AV7300, use with any composite monitors	£74.95
Word Perfect	£149.95
Superbase Personal	£69.00
Superbase Professional	£179.00
Super-Plan	£74.95
A500 Dust Cover	£4.95

A-MAX MACINTOSH EMULATOR

An AMIGA COMPUTING Gold Medal winner - allows Amiga users to emulate a Mac Plus in order to run Apple Mac and Mac Plus software. Mac disks can be read directly in when an external Mac Drive is connected to the cartridge hardware. Runs at least as fast as a Mac Plus! Software compatible with the A-Max includes MacPaint, MacDraw (V1&2), MacWrite, Pagemaker (V1&2) plus all versions of System.

A-Max without 2 x Mac 128K ROMs ... £129.00
A-Max WITH 2 x Mac 128K ROMs £249.00

vortex system 2000 hard disks

Now available - Vortex 'System 2000' hard disks, offering versatile high-capacity storage, suitable for use with the Amiga 500 and Amiga 1000. The units are of a high specification, with a formatted capacity of over 42Mb and an average access time of 45Ms. The system consists of a hard disk base unit, cables and an Amiga interface module, with utilities software including an autoboot facility and a hard disk backup utility.

System 2000 40Mb Hard Disk package £529.00

PRINTERS

All prices include VAT/delivery & cable

LC10



Hugely successful 9 pin printer, the Star LC10 provides 4 NLQ fonts (with 96 print combinations) at 36cps and 144cps draft. Has a large 4K buffer and IBM/parallel interface built in, includes a comprehensive front panel operation and features paper parking, allowing single sheets to be used without removing tractor paper.

star

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Colour version also available,

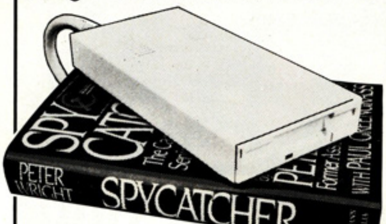
Only £229.00

Prices include 2 extra black ribbons free of charge.

Star LC24-10 multifont 24pin printer, amazing new low price	**£239.00**
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Stan NX-15 good value wide carriage 9pin printer	£329.00
Panasonic KXP1081 reliable 9pin 10" printer 120/24 cps	£169.00
Panasonic KXP1180 super new 9pin multifont 11.7" carriage	£199.00
Panasonic KXP1124 good quality new multifont 24pin	£319.00
Panasonic KXP-37 cut sheet feeder for KXP1180	£95.00
Panasonic KXP-36 cut sheet feeder for KXP1124	£109.00
Epson LX400 (was LX800) 9pin 10" 180/25cps	£179.00
Epson LQ550 24pin 10" 150/50cps	£319.00
Epson EPX-200 cut sheet feeder for LX800 / LQ500	£74.95
NEC P2200 budget 24 pin 168/56cps	£319.00
Citizen 120D budget 9pin 10" 120cps	£139.00
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We are now supplying the new, good quality RF542C 5.25" floppy drive compatible with the Amiga. Quiet in operation, the unit is colour matched to the Amiga, and has a throughport connector. The drive is capable of a number of configurations including 40/80 track switching and 360/720K format, giving full 'Transformer' compatibility.

Only £114.95 including VAT & delivery

OMEGA projects MIDI INTERFACE

Good value, low cost compact MIDI interface, completely compatible with all music software currently available that uses MIDI capabilities. Connects to the serial port, and features diagnostic display indicators to enable the user to locate the source of a fault. Supplied with 30" serial connector lead full user instructions.

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DOUBLE TAKE! PYE TV/MONITOR (MODEL 1185)

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ONLY £269.00 price includes VAT, delivery and cable

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10 Bulk packed DS/DD 3.5" disks with labels, fully guaranteed	£11.95
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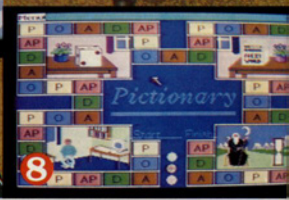












COMING ATTRACTIONS

EARLY NEWS AND PICTURES OF THE GAMES YOU'LL BE PLAYING

1 FAST LANE

Artronic will soon be releasing this car-driving sim based on C1 category sports cars, which has been designed with a great deal of help and assistance from C1 specialists Spice Engineering. The object of *Fast Lane* is to win the sports car racing drivers' world championship title by competing against 20 other top drivers in a series of races at such circuits as Suzuka, Le Mans, Brands Hatch and Dijon.

2 DYNAMITE DUX

Coming soon from Activision is this wacky coin-op with an unlikely pair of heros, Bin and Pin, who only happen to be ducks. Well, anything goes in coin-op land and just to prove it they'll be fighting against such nasties as Sumo Pigs and Boxing Crocodiles! Based on the Sega arcade machine, it's a horizontally-scrolling beat-em-cum-shoot-em-up with bags of playability.

3 KEEF THE THIEF

Electronic Arts will soon be releasing this tongue-in-cheek role-playing adventure which features stunning graphics, loads of music and bags of humour. There's magic, combat (arcade-style, with the action viewed through the player's helmet visor) and plenty of thieving to be done. But if you fancy your RPGs a little more serious, you'll soon be able to get your hands on

4 *Sword of Twilight*, a fantasy RPG with arcade elements. In the game there are eight parallel worlds joined by a magical road. Seven evil Shadowlords (aren't Shadowlords always evil?) have infested the worlds and only the player's homeland is holding out. To save the day you'll have to seek out seven enchanted swords and return them to their original rock.

5 MYSTERY OF THE MUMMY

For those of you who fancy playing detective, you'll soon have the chance with Rainbow Arts' next release. *Mystery of the Mummy* is an adventure game in which a series of baffling murders linked to an African mummy are keeping the whole city in suspense. The game is menu-driven and features some 60 digitised pictures of original charcoal drawings.

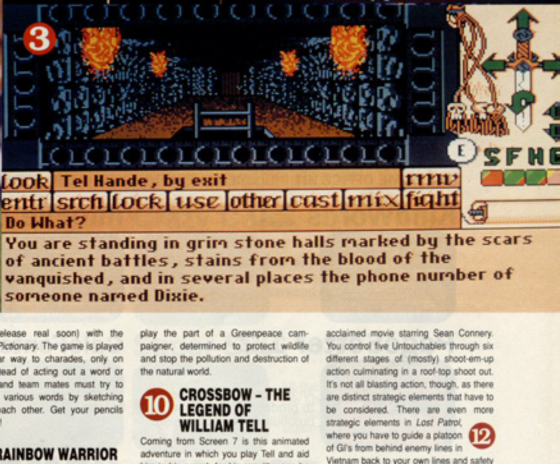












6 TIME

From Empire comes Time, an animated adventure which takes the player on a hectic and dangerous journey from a space-age future to some of the most exciting eras of the past. There are over 100 locations and some 60-odd characters to interact with (each can be viewed as either a fully-animated face or as a side-on figure).

Also from Empire is a footy sim endorsed by Tottenham Hotspur's Paul Gasgoine. Gazza's *Super Soccer* (7) willfeature a full range of League and Cup matches and a host of shots and options to choose from. Footy fans, get your boots on!

8 PICTIONARY

Domark will be following up the immensely successful *Trivial Pursuit* (the *Amiga Genus* edition is also due for release real soon) with the launch of *Pictionary*. The game is played in a similar way to charades, only on paper. Instead of acting out a word or title, you and team mates must try to guess the various words by sketching clues to each other. Get your pencils sharpened!

9 RAINBOW WARRIOR

Greenpeace, the international environmental pressure group, has joined forces with MicroProse to bring us the official Greenpeace game. The game brings its audience into contact with some of the key environmental campaigns of our time. Issues covered include the destruction of the ozone layer, nuclear power, the dumping of radioactive waste, untreated sewage discharge into the sea, the slaughter of seal pups and the continuing whale hunt. You play the part of a Greenpeace campaigner, determined to protect wildlife and stop the pollution and destruction of the natural world.

10 CROSSBOW – THE LEGEND OF WILLIAM TELL

Coming from Screen 7 is this animated adventure in which you play Tell and aid him in his search for his son (the one he shot the apple off the head of). The action takes place in and around Tell's village, in surrounding settlements and in the towers and dungeons of Tell's arch(ery) enemy Gessler. String up your bow and shoot those poison arrows.

11 THE UNTOUCHABLES

Ocean will soon be launching their interpretation of the critically-acclaimed movie starring Sean Connery. You control five Untouchables through six different stages of (mostly) shoot-em-up action culminating in a roof-top shoot out. It's not all blasting action, though, as there are distinct strategic elements that have to be considered. There are even more strategic elements in *Lost Patrol*, (12) where you have to guide a platoon of GI's from behind enemy lines in Vietnam back to your own lines and safety – but beware, one of your group may prove to be a bit of rat.

13 KNIGHT FORCE

This twenty-five-level, five-stage horizontally-scrolling beat-em-up features some impressive backgrounds and plenty of sword-wielding action as you try to rescue the princess Tanya who's been captured by the evil sorceror Red Sabbath.

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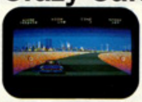
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It's very rare for one single music package to turn the world of music on its head: but, as **JON BATES** discovers, one has just hit the market that looks set to do exactly that.

MUSIC XPLOSION



FIRST THINGS

Although *Music X* will run on an A500, it is ideally recommended that you have at least 1 megabyte of RAM to go at. The reason for this is that as you have more modules of the program called into memory, the storage length left for your music is diminished: at full stretch, the program will take up nearly 400K, which leaves not too much in the way of memory. What in fact will happen is that modules will be overwritten in the memory and can't be called back in. Cleverly, the program will disable the Workbench to make extra room if it is stuck, and there is an option to recall the Workbench too.

After several months of build-up and previews when we couldn't get our mitts on a finished version, *Amiga Format* is able to bring you the first review of the fully-completed UK version of a program that should clean up the competition as far as the musical aspect of the Amiga is concerned. Ladies and Gentlemen, for the risible sum of £199 plus VAT, I give you *Music X*.

Why should you purchase it? Well, usually music software falls into one of several categories. It can be either a sequencer, a voice programmer, a sampler, or some sort of MIDI interpreter. With *Music X* you have all these in a single package which takes full advantage of the multi-tasking capabilities of the machine. It is the first package specifically designed for the Amiga: the others are programs crossed over from less capable machines.

Lets take a run round the various departments of this program – to be honest, each one is worth a review in itself, but we'll compress a little to get all the details in.

SEQUENCER

THE FRONT END

This is the main page that the program defaults to. The upper window contains the familiar tape recorder icons of Pause, Record, Play and Stop with Fast Forward and Back. Topping this are Begin – which is in effect jump to zero – and End, which is a very useful feature that locates the last two bars recorded if you wish to add on extra bits or continuations. It is the first time I have seen this feature, and jolly useful it is too. There are four Cue buttons which can be set at any point within the piece that you fancy. I would have liked to have an ultra-fast wind plus the ability to fast forward while the piece is playing.



■ The front-end page, to which the program defaults, is the main sequencer screen. Sheer power at your fingertips.

Recording is dead easy: hit Begin to start at zero and then record. It gives you a two bar count-in, alterable, and away you go. Anything you play is stored in a record buffer and will be only kept if you decide to place it in the sequencer list in the bottom half of the screen. There are 250 tracks for you to put sequences into and so it is highly unlikely that you will run out of space.

One thing the manual doesn't mention is to watch the available memory space counter. If it counts down while you are recording you know the information is going in. I would have liked some sort of indicator to tell me that MIDI data was actually going into the Amiga.

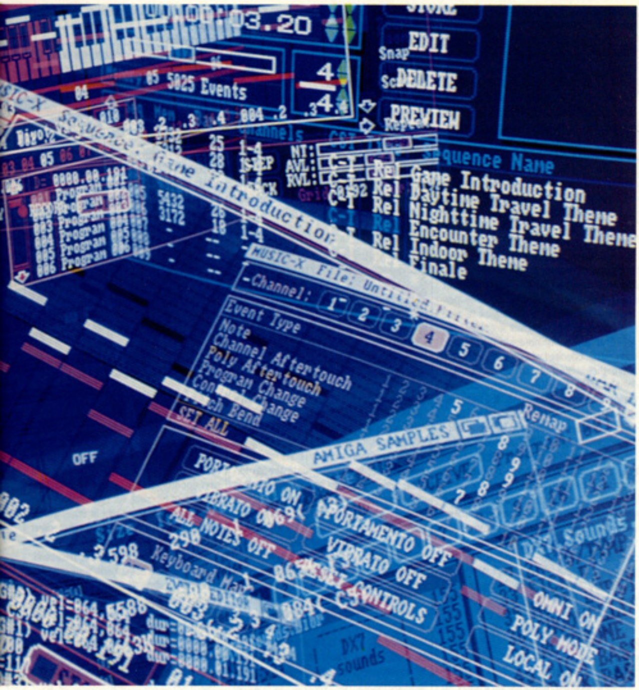
If you are trying several versions of the same part, you can compare the stored version with the version just recorded by hitting Preview which plays back the record buffer. Once the part is fixed in the sequencer list, a full report on its status is listed. Bar length, memory size, MIDI channel, what time code it is using, name and whether it is playing the internal voices or MIDI external voices are all reported on.

A little bit of explanation about the last sentence. *Music X* is able to read several external time codes – more of which later – so it is useful to know whether it is using Relative or Absolute time code. (That's also why there are two time clocks, one in bars and beats and the other in minutes seconds and frames for SMPTE video code.) The internal voices are treated as 16 MIDI channels and the Ex1 sign means that it is on normal MIDI. There is provision for more than one circle of MIDI instruments to be added at a latter date. Any sequence can be turned off and on, although not while it is playing.

The tempo is set from the slider and if you want to alter the number of beats per bar this is pretty well catered for by a copious amount of time signatures. Oddly enough, for a program so geared up for video work, when you change the tempo it does not alter the time or bar elapsed counters. Once the piece starts to get under way, the top right hand window shows the sequences that are playing at any given bar. This is a non-active window.

As well as the screen there are drop-down menus and windows that appear when various functions are clicked. In any page or module it is the far left menu that gets you from one module or function to the next. All important decisions throw up a safety prompt to avoid the red face of losing your entire work, and there has been some thought to the program in that you can suspend operations to free up the serial port for other applications, and then return to it without having to reboot.

On the sequencer page the output channels can be set, but all input channels are set from the filter page. The sequencer will punch in and out either automatically, from setting the bars, or manually. Oddly enough, you set the bars from a drop-down menu but set the

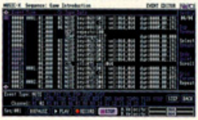


EASY START

One of the nice things is that the program can be run as a stand-alone music sequencer without any need for external MIDI devices. Since it can play back four samples simultaneously and swap them around quite quickly, it makes an ideal starting point for anybody who hasn't any MIDI-equipped instruments. After getting used to the program, you can save your pfennigs and add MIDI gear to it bit by bit. The program does not come with an interface for MIDI, but this is not going to set you back too much: obviously any interface will run, and so it is up to you to shop around for the cheapest.

function from a window. Perhaps a complete window for this would have saved time in racing around from screen to screen: it also takes a little while for the program to locate the bar you want to record or play from.

Sequences can be copied, merged, over-recorded or overdubbed, and certain types of events extracted. Remember this is not yet the edit page: this is just the front-end sequencer functions. As mentioned before, it is very competent at synchronization. It will respond to its own internal clock, external MIDI clock, internal Video clock (which runs at the same frequency as SMPTE, has software corrections, and can be used as a near as dammit guide for timings against video), the new MIDI time code which some videos use, and good old SMPTE timing code although for this you will need external SMPTE reader hardware. It will also sync up with drum machines and other sequencers to any given point by using the MIDI song position pointer. By now you should be getting the idea that *Music X* will synchronize to virtually everything and anything including your bedroom alarm clock and microwave.



■ The Event Editor presents the details of the part as a data stream.



■ The Bar Editor offers a simpler but less accurate graphical presentation.

SEQUENCER

THE EDIT

On pressing Edit we move into a different screen. There are two types of editor: a graphic display called, slightly confusingly, a Bar editor: and a typical data stream editor called an Event editor. The Bar editor is so called because everything is shown in bar graph form; the Americans call musical bars 'measures' so at least they won't be confused. Notes are represented by oblongs of different colours for different MIDI channels and the vertical bars refer to the velocity and aftertouch. All these are overlaid on a grid and the whole thing scrolls from left to right. To the far left of the window is a vertical piano keyboard by which you are supposed to be able to work out the pitch. Personally I found it pretty superfluous as notes were not highlighted: editing was best done by ear. The graphics can be expanded or contracted in size for macro overview or fine editing.

The first thing to sort out is the grid ▶

FROM EASY TO ADVANCED

The manual goes a long way to explaining the workings of the Amiga for novices and the operation of MIDI, plus a little towards the construction of music, although not in great detail. There is an advanced user's section for assembling songs in different ways and instructions to ensure that the program will boot up with the modules you use all the time ready installed.

size. This is quite important as it is from the size of the grid that the quantize values are set up. There is a complete range of musical note values including options for irregular timings such as five and seven beats to the bar, or even to the crotchet for snazzy things like quintuplets and septuplets which may occur in more extreme solos. This, again, is a first for *Music X*.

Quantization itself is well thought out, if a little away from the normal way of working as set by other programs. It will only quantize on notes once they are in the memory: there is no auto quantize while recording. Having set the grid size to which the strict beat should conform, you can then quantize the notes to within a certain percentage either side of that norm. It can be told how far in front or behind to start quantizing and the percentage amount of exactness can also be specified. Not only will it correct the point at which the note starts, but you can also choose whether or not you want the whole note to be moved, the whole note to be moved and the end point quantized, or simply the start of the note moved.

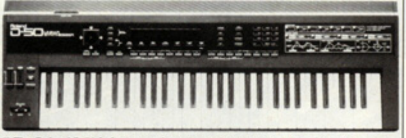
KEYS WHERE YOU WANT

Most of the functions in any of the departments of the program can be run from either the mouse, the qwerty keyboard or in some case the keyboard of your MIDI instrument: keys can be assigned various functions, so that you are not constantly running around from keyboard to keyboard, losing both your mouse and your temper simultaneously in the process.

Quantization can also be applied to velocity and aftertouch, and within this there is a 'scaling' type of module which will allow you to increase or decrease the velocity and/or aftertouch over a specified area. If you leave them but add a random factor, then I found that you could give things like drums and especially hi-hats a great degree of human feel while leaving the main accents evident. On the aftertouch front, by the way, the program will accept and work on both 'channel aftertouch', which affects all the notes played at any one time, or the more sophisticated 'polyphonic aftertouch' which only works on the note so pressed. I found the methods of using these important features very easy to get used to and after a few hours of experimentation I was surprising myself with the results.

Actual editing is done via the pointer with the usual options: add, move, delete, mark, cut and paste. Notes can be lengthened or shortened by dragging on them. The notes sound when you click on them, although I found it was a pain in the proverbial that this did not happen in delete mode, and so it was all too easy to cut out important notes. There are also limited record facilities in the edit mode, and you can hear a sequence back either on its own, or with the rest of the sequences.

I found, though, that the screen kept scrolling after you hit the stop button – which made life a little difficult when trying to locate a point exactly – and there didn't seem to be any way to manually scroll through the part at your own speed and hear the notes, although you can turn the scroll function off.



■ The Roland D-50 is just one of many synths supported by voice protocols.

For some reason my grid and quantize sizes didn't seem to be memorised when I reloaded a song, although every other peripheral throughout the whole program was. The Event editing is the same as the Bar, but in scrolling data-stream format, which is pretty good for fine alterations to various notes. Not every action is duplicated and there are going to be some functions, like marking off areas, which are better done in the graphic 'Bar' editor. Maybe an abridged data-stream editor window would have been of use, particularly when coupled with the graphic editor.

Transposing sequences is achieved through something called Play Sequences, which is the method of song assembly used. However I could not find a way to perform either part or global transpositions of without having to resort to this slightly odd method of assembling tracks, which I felt to be a major omission. I also felt I could have done with a window that would have allowed me to visually assemble sequences to play consecutively without being affected by the bar numbers.

One thing I failed to understand was that Solo, which is usually an option reserved for the sequencer playback page, was set as an event command insertable anywhere in a track or sequence. Maybe I missed the point but it is usually something that you use when comparing all the parts together. Its uses within a track are reasonably limited and it might have been easier to have it as a recordable event on the sequencing page. Tempo alterations, program changes, and indeed the whole gamut of MIDI operations are supported and editable in the sequencer. Apart from one or two minor niggles I found this very easy to use.

SEQUENCER
RECORDING

To set up the recording, there is a filter page which maps out the MIDI information coming in and routes it to wherever you want, extracting information that may or may not be wanted. Information can also be sent to places that other sequencers can't reach! In other words, you can translate messages into other forms: so pitchbend could become modulation, or aftertouch become pitchbend.

It will also accept and work on many channels simultaneously and remap them however you wish. One useful thing here is the sliding filter that works on aftertouch and pitchbend. Quite often you will find that the sensitivity of one instrument is not matched by the sensitivity or programming of a particular voice on another instrument, so pitchbend of a semitone can become pitchbend of an octave, depending on the synth and the program for that voice.

The filter is a quick way of getting round that problem, although it does have a few quirks in that the filter tended to highlight the steps in the pitchbend, and when tested with fast data from vicious pitchbending it tended to jam up.



■ Left: the clever filter that allows control over note attributes.

■ Right: via the sample page, serious sample editing is made easy.





■ Left: the library page can collect MIDI information from 16 different instruments.

There are also controls to set instruments into the various modes and knock off hanging notes and vibrato: something which the main sequencer didn't appear to do when stopped in mid sequence with a hanging note. The eventual destination for the channel can be either internal or external voices.

Accessible from this is the rather clever Keymap Editor which gives you a choice of setting up four Keymaps. These can turn your master keyboard into a multi-timbral controller with different areas of the keyboard assigned to different channels, so that bass in the left hand and piano in the right are easily possible: or you can set any keys you want to trigger off various commands such as program change, muting track, solo track, or starting and stopping the recording process. All very clever. You can even get one note to play a sequence at that pitch so it can become a one finger bass line which in itself can be re-recorded on a separate sequence! Keymaps are stored when data is saved.

SAMPLING

The samples page is a list of the samples loaded in to the program at the moment. *Music X* will accept and store in both IFF and Sonix formats. It gives all the relevant details regarding the sample – highest notes, range, memory size and tuning – and the channel to which it is assigned. More than this, in the lower right-hand corner is an envelope editor for reshaping the sounds of the samples and retuning them.

It is a pretty comprehensive editor with a 16-stage envelope for the sound with variable sustain point. It is also conscious of the amount of memory that samples use and to this end it can throw away the largest octave, which will also be the lowest octave, of sounds if you are not going to use them, and thus free up a little more space for another sample. Altogether a very comprehensive and useful adjunct to the sequencer.

It is this page that will probably get a lot of use if you buy the program without having any MIDI equipment. There is a reasonable variety of samples available with the program but a quick scout about the public domain catalogues and our giveaway disks should turn up some useful samples. *Music X* will only run four samples simultaneously but these can be swopped judiciously to give a really big sound to a track you're working on.

LIBRARIAN

If you are working with external MIDI instruments, one of the things that you might need is a device to store all the instrument data that is contained in them. This means that the set-up for any song you perform can be stored as part of the *Music X* program and then sent to each instrument in turn, when you return to that song after working on something else. To do this there is a module called a Librarian which at its basic stage will collect and store voice information from the synths in batches of 16 at a time.

Now, although most instruments will perform the systems exclusive voice dump required for this, the codes required to persuade them to this are different for not only each make, but usually each type, of synth or tone module. *Music X* comes with protocols – that's the commands to send and receive data – already built in, for the DX7, 100 and 21, Casio CZ1000 and Roland D50.

It does also have the possibility for you to create your own protocol which can be called in to work with your own synth. Here the manual goes into very helpful details on how to set these up and tactfully tells you that no-one has ever got it right first time. It is not the fault of the program, it's just that synth manufacturers are not always straightforward in the manner in which they present this information: it's usually those back pages of the manual littered with details of status bytes and checksums.

Added to this there are three excellent visual editing programs for the DX21/100, TX81Z and D50. These themselves are usually about £50 each so you can work out the value of these programs for yourself. More will be available later, and that in itself is one of the many strengths of *Music X*. Since the program is modular – it calls sections into the memory as it needs them and, if the RAM capacity is up to scratch, then that is where they stay – these modules can be updated by Microllllusions later and offered to existing *Music X* owners. Theoretically this means that the program should not go out of date and any updates should be available at discount prices. I also envisage that a user group would be useful, as information regarding samples, voice protocols and editors would save a lot of time.



■ Patch data editors will be available for many synths: cheaper than ROM!

Data for the actual sequences created can be saved in three formats: *Music X* file, standard MIDI file which enables it to be loaded into other compatible sequencers, and the Amiga SMUS file. There is an additional utility program that will do the conversions. Since it stores in MIDI file it can also be loaded into scoring packages such as *Dr T's Copyist* or *ProScore* from Comus.

Apart from one or two minor queries and a channel that refused to work on one song initially, *Music X* passed every test with flying colours. It is the most comprehensive and competent music package for its price that I have seen anywhere. If the price tag had been double, it would still be worth it. Don't waste time, check it out now. ■



MUSIC X
£199 +VAT ■ All Amigas ■
SDL (UK) Ltd, Sidcup, Kent.
Tel: 01 300 3399

THINGS TO COME

Thanks to *Music X*'s modular design, even as we speak Microllusions are working hard on add-on modules (pages if you like) that will further enhance this powerful program. First off the blocks is a range of patch editors which will sell at the unbelievable price of £10 each. Roland D110 and Korg M1 owners will be the first to receive editors for their keyboards with many others to follow.

The first major additional page to arrive will be a real-time score editor which Microllusions hope to finish in time for a January release. Future modules planned include a drum pattern composer/editor and a powerful 'Arrange' page which will allow easy construction of songs. All add-on modules will be available for £50.



■ Left: the keymap editor allows set-up for four keyboards.

■ Below: there's plenty of power to manipulate patches.



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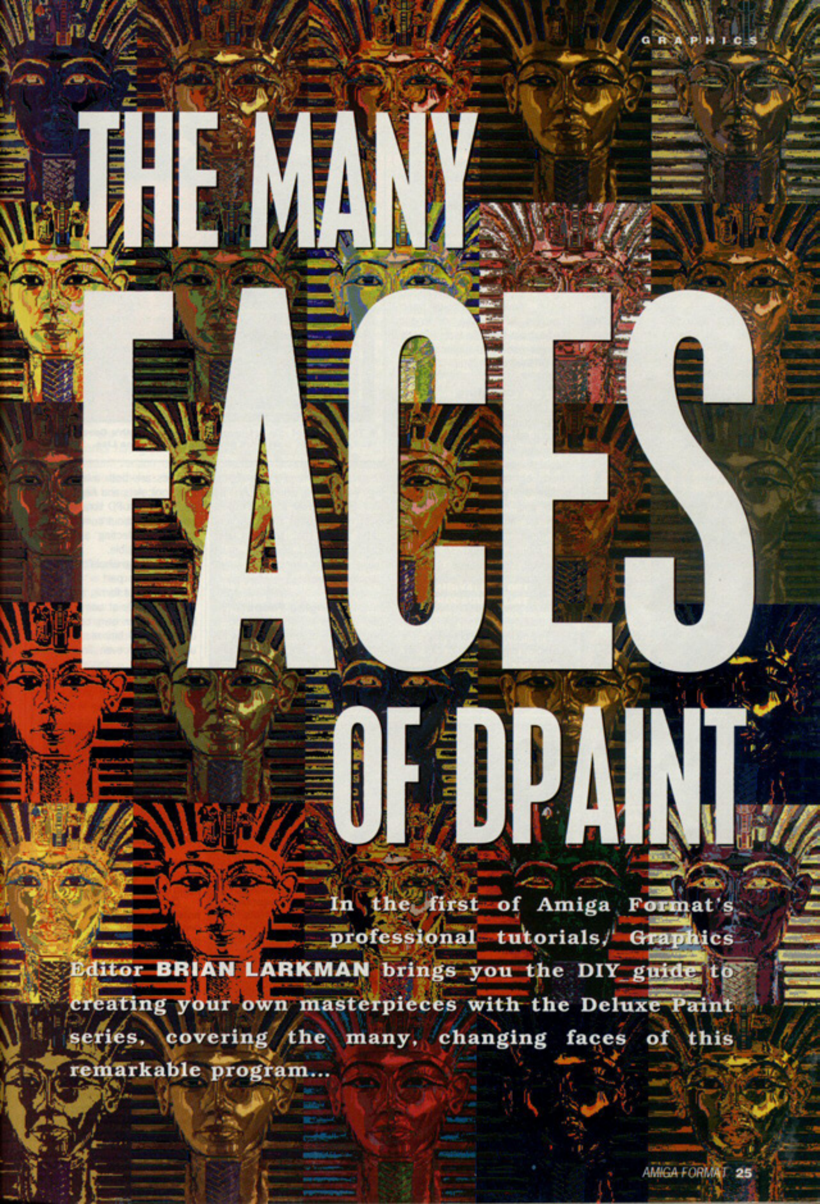
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THE MANY FACES OF DPAINT

In the first of Amiga Format's professional tutorials, Graphics Editor **BRIAN LARKMAN** brings you the DIY guide to creating your own masterpieces with the Deluxe Paint series, covering the many, changing faces of this remarkable program...

MATCHING PALETTES

One great advantage of commercially-produced clip-art is that usually all of the clips in each set are produced using the same palette, so there are no problems when mixing them together. If you need to bring in clips from another picture, check first that there are already colours in your palette that are similar to those in the clip. It is then just a matter of remapping the brush colours to suit.

If there are no suitable colours then the remap will look rather odd. In that case try to regain one or two colours from the palette – using Less Colours in *PixMate* if you have it – or by merging two similar shades if not. This job is made much easier using Stencil in *DP2* or *DP3*, and at least a bit simpler in *DP1* by making the colour to be discarded very bright and using magnify and fill.



Deluxe Paint is probably the single most widely-owned piece of Amiga software after Workbench, having been bundled until recently with all A500s sold. In spite of its major flaw – wasting a fifth of the available screen – most Amiga artists have used it at one time or another.

The original *Deluxe Paint* (*DP1*) has been upgraded, first to *Deluxe Paint II* (*DP2*) and now to *Deluxe Paint III* (*DP3*): but apart from abandoning 200-line NTSC for the European 256-line PAL display all the original, basic features remain, though most have been improved. So let's see how to get the best out of these first. Playing with the enhanced tricks of *DP2* and *DP3* will come later.



■ The pieces of clip art, supplied on this month's Coverdisk, all ready for you to start work producing a new Mona Lisa.

Cheating

The primary reason for using any computer graphics package is to make it easier to create 'for real' the image in your mind's eye. The quickest way to achieve this is to cheat, by taking a ready-made picture that is close to what you want, and modifying it to suit. Even for an experienced artist this method can save a lot of time: though for a novice it is still important to practice creating from scratch, simply as part of the learning process. We shall examine these basic skills at a later date.

Two ways of 'cheating' are available: digitising and clip art. The equipment required for digitising, including a video source as well as a digitiser, can be expensive: but it makes the task very easy, as we shall see in a later instalment. For now we must make do with cannibalising other people's artwork!

Changing Faces

Clip art can be obtained from a broad range of sources. Disks full of complete screens and smaller brushes are both available from Electronic Arts and Aegis, as well as from most PD libraries. If you are serious about computer art it is worth collecting as many of these as possible.

Even if the whole picture is of no use, one part – an eye or nose, a lick of flame, a hub-cap – may be handy at some time. So build up your own collection of directories of bits ready for later use.You may even find that the

AGEING: USING SMEAR



Like "Ambivalent", the transition shown in "Ageing" is designed to be viewed as an animation. It is primarily an exercise in the use of Smear techniques, though cut and paste and scaling of features were also used extensively.

As the human body gets older, the elasticity of skin becomes reduced so that our faces generally lose the firm look of youth and become either wrinkled or sagging. Apart from the wrinkles around the eyes, and the enlargement of nose and mouth, the general effect of ageing in this illustration is conveyed by sagging of the facial muscles. This effect is quite simple to produce using Smear.

In the first three frames the features are gradually thickening. This was achieved by expanding the features and the neck. The fourth frame shows the start of sagging. A clip was cut of a section of the jaw line (using Polygonal Brush Selector in *DP3* or by cut and paste and erasing the excess then cutting again using *DP1*).



Once Smear is selected, this brush can only affect the pixels beneath it, dragging them in the direction the brush moves, and to a lesser extent, those pixels nearby. The effect of sagging is achieved by dragging the brush from its original position, down and out from the jawline. The fifth frame is an extension of this process, applied to the chin and eyelids as well as the jaw. The effect is so horrific I am surprised that the Editor has allowed you to see it. You can tell that most of the Format team is quite young, not yet worried about sagging flesh! Wish I could say the same!

palette used for a picture is useful just on its own, so save small brushes of any colour combination that particularly appeals, named appropriately: 'summer landscape', 'hellfire', 'flesh tones', 'pastels', 'rainbow' etc. This can save a lot of time in the early stages of a picture.

This month the *Amiga Format* Coverdisk includes some exceptional clip art from the Electronic Arts "Art Parts: Vol 1" disk 'Faces' directory. The basis of this month's tutorial is employing these examples to demonstrate how best to use clip-art, concentrating on two of the main techniques for mixing and modifying clips: **scaling** and **smearing.** So if you have *DPaint*, you can use the program and our Coverdisk to practice the techniques as we run through them.

The range of tools provided by *Deluxe Paint* for modifying clips or brushes has grown with each subsequent version of the program, but nevertheless the initial set is quite adequate for most purposes, and most of them are used in the accompanying illustrations.

Scaling

Only rarely is a particular clip exactly the right size and orientation to fit in your picture. By scaling – changing size and proportion, flipping horizontally or vertically, mirroring or rotating, bending and shearing – the clip you have can be transformed into the one you want. In fact, one of the great joys of computer painting is that any component need only be drawn once and then re-used in many different situations. The same nose can be made fatter or thinner, bigger or smaller, straight or crooked, with just a few clicks. The illustration "Ambivalent" shows how subtle use of clipping and scaling can transform an image.

Smearing

Often, a picture can be transformed by the slightest modification; a tiny upturn in the corner of a mouth can give a straight face an enigmatic smile – or a leer! The major tool for this sort of work is Smear. With Smear selected you can push the pixels under the brush in much the same way that oil paint can be smeared with your finger. Smear only uses the colours under the brush, without adding colours: so with careful use major distortions can be produced without changing the basic texture of an object. The transformations in "Ageing" were produced mostly by smearing. ▶

"AMBIVALENT": USING SCALING



The transformation of a woman's face into a man's is an exercise in the use of the tools in the *Deluxe Paint* Brush menu. It is designed to be animated in *DP3* in Ping-pong mode. The male and female faces at either end of the sequence were produced purely using the clip-art supplied in the Faces drawer of the *DP3* Art Disk, without any modification. The 'inbetween' images were composed using the same clip-art, modified to suit.

The idea of transforming one face to another over five frames means that as well as the features, the actual shape of the head needs to change from one frame to the next. In this sequence, the first three heads are all versions of the female head, with the lower jaw cut, stretched vertically progressively in the second and third frames, then re-pasted to align. The fourth frame is the male head, with the lower jaw modified using the Brush menu tool Rotate/Shear to almost match the third frame. (The left side of the lower jaw, cut down the centre, is Shear-rotated so that the top of the clip is unchanged but the bottom is moved to the right to match the jawline in (3). The process is then repeated on the right side.)

For convenience, the five images were all loaded as animation frames in *DP3* so that the spare screen could be used for loading and modifying clips 'on the fly'. Using *DP1* the clips of the features – eyes, ears, noses and mouths – need to be modified in advance, as shown in "Ambivalent Bits", then pasted alongside the relevant blank 'head' ready for alignment.

It must be admitted that the hair transition as presented here would be quite difficult to align well using *DP1* as the clips are too large to include at the sides ready for alignment. They would have to be modified by eye as a final stage. Using *DP3* all five frames were resident in memory and alignment was simple. Even in *DP2* the use of Background mode on the Effects menu would make alignment and modification quite easy.

AMBIVALENT DP1 PROCEDURE LIST

The sequence of actions for producing the Ambivalent transition accurately using *DP1* would be:

A. *Load Heads clip, cut female head, clear the screen and paste it in to the centre.*

B. *Load Ambivalent-Bits, cut and paste the (1) bits and save.*

C. *Lengthen the jaw, cut and paste the (2) bits at the sides and save.*

D. *Lengthen the jaw, cut and paste the (3) bits at the sides and save.*

E. *Cut and paste the (4) bits (at the sides), load Heads clip to Spare screen, cut male head.*

F. *Copy main screen to spare then paste brush aligned to the head on the main screen (use the 'head' brush to remove the lower part of the previous head using the right 'erase' button of the mouse.)*

G. *Modify the jaw using Shear, and paste in position (comparing jawline with that on spare screen) (use 'j' key to flip the screens.) SAVE.*

H. *Load Heads clip to spare screen, cut male head, paste aligned with head on main screen.*

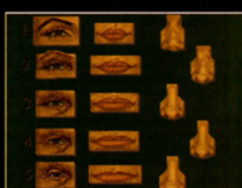
I. *Load Bits to spare, cut and paste the (5) bits to the main screen(at sides), SAVE.*

J. *Load screen (1) and copy to spare.*

K. *Load screen (2) and paste the bits from the sides to align with those on (1) using 'j' key to flip. SAVE.*

L. *Repeat with (2) and (3), (3) and (4), (4) and (5).*

AMBIVALENT BITS



■ Each feature of the face changes over five frames, so the process used was to place the start and end clip at top and bottom of the screen and then transform progressively from the first extreme to the last, cutting and pasting whichever bit was closest to what was suitable at that stage.

FROM THE TOP:

1 The initial set of female features. Ears are not included because they were only slightly enlarged for each change.

2 Eyebrows needed to be gradually faded out, so Shade from the mode menu was used to lighten them. (A colour from the 'hair' range in the palette was selected so that only 'hair' colours were lightened. In *DP2* and *3*, Stencil might have been used.) The darker, wrinkled shading above the final eye was pasted into position. (In *DP1*, paste down a spare copy of the whole eye and paint out in background colour all but the required bit, then cut and paste. In *DP2* & *3* use Polygonal brush selector.) The whole mouth (1) was stretched slightly wider. The final nose (5) was squashed vertically to match (1) and highlights added by hand.

3 The final eye clip (5) was used at this stage complete with wrinkles and bags, but the darkest areas and the worst of the wrinkles lightened using Shade as described in (2) above. The centre section of the first eye (1) was then cut-and-pasted onto it so that the pupils aligned. The mouth is in two sections: the top lip is the same as in (2), the bottom lip is from (5) coloured by hand to match (2). The nose is just a vertically squashed version of (5).

4 This eye is exactly that from (5) with the darker areas lightened to lessen the wrinkles. The mouth is still in two sections: the lower lip as in (5), the upper lip is from (3) but squashed vertically to match (5) more closely. The nose is just a slightly squashed version of (5)

5 The final set of male features taken direct from the Faces drawer.

▸ DPAINT TUTORIAL
CONTINUED



COSMETIC SURGERY

Almost invariably, clip-art is best assembled starting from the back and working forward. Two heads are provided in the Faces drawer, male and female, loaded together as a low-res picture. One of these is picked up as a brush, the screen cleared, and the brush pasted centre-screen. Eyes and noses are loaded as another picture, on the spare screen. To assemble one image this process – picture on main screen, clip-art pictures loaded to spare – works perfectly well. If several images are going to be worked on and aligned for animation, a bit of juggling is required, especially in *DP1*.



■ Begin building a face, working from the back. The head is an obvious first step, but the hair will need to be behind the ears so it can go on now too.



■ Placing the important features on the face is easy.



■ Our complete masterpiece.

DIGIPAINT 3

First impressions of the latest version of Newtek's popular HAM painting system: expect a full review next month...

One of the first developers to realise the potential of the Amiga's 4096-colour HAM mode were Newtek, with their *Digiview* digitiser and *Digipaint* HAM painting system. *Digipaint* in particular was a revelation, because it was the first commercial paint program for a cheap micro that allowed really realistic painting: smooth gradations of colour, transparency, even lighting effects could be painted in what seemed a really easy, free way. Then along came *Photon Paint*, with its easy interface and texture mapping, and *Digipaint* seemed to disappear. A combination of poor marketing in Britain and preoccupation with their *Video Toaster* (will it ever appear in Europe?) has resulted in Newtek losing the HAM painting initiative. *Digipaint 3* is clearly intended to regain a place at the top, but it may be too late!

Old Dog, New Tricks

Digipaint 3 is similar to the original in many respects (version 2 never made it to Europe) but the interface and many of the tools are completely redesigned. The changes are definitely an improvement, providing a slick interface and many interesting and innovative tools. Nevertheless, some of the new 'tricks' are included at the expense of the old ones. For instance, there is now no airbrush – astonishing in itself on a package of this sophistication – yet the old airbrush in combination with shading produces the best cloud effects of any paint program on the market. Similarly files can no longer be saved with comments: *Digipaint 1* was virtually the only Amiga program that included this excellent facility.

Featuring...

Enough of criticism: what CAN the system do? A detailed description of the more exciting new features must wait till next month, when the DIY tutorial will be a comparison of *Digipaint 3* and *Photon Paint 2* – how they compare in the features stakes and how-to-do-it in either program – a working review! Meanwhile, perhaps a list of the most striking features will give you an idea of what *Digipaint 3* is capable of.

The tools include:

■ A form of 3D texture mapping onto any shape you can draw, with anti-aliasing for smooth results (but not true 3D surface mapping).

■ Transparency control operating on all other tools and features.

■ Cut and paste with any of the drawing tools, including picking up the result of an irregularly-shaped special effect.



■ A photographic image digitised and reworked in *Digipaint*.

■ Easy to understand modes: colourize, lighten, darken, texture map, blur, 'rub-through' etc.

■ Real-time auto-scrolling on Super Bitmaps up to 1024 by 1024 (contact with any edge initiates the scroll in a smooth, controllable way).

■ Eight times magnification with realtime scrolling (but rather clumsy operation and no zoom).

■ Text rendering using any of the effects and modes.

■ Patterned or random dithering calculated at 30 bits per pixel.

Other features include:

■ 68020 support.

■ 3D painting with X-Specs 3D (if you can get any!)

■ *ARexx* compatible for software control of all features.

■ Loads any size and displays overscan and severe overscan.

■ Manual with limited guided tour and tutorials (no index).

The features that are missing are rather surprising:

■ No fill of any kind (except filled shape tools).

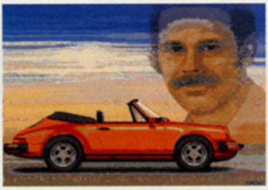
■ No airbrush.

■ No 'free' rotation.

■ No stencil.

First Impressions

Overall, the program seems rather better in use than this initial reaction review might imply. Most of the tools that are missing are usually fairly easy to simulate using other techniques, though no fill may be a bit limiting at times, and free rotation is almost essential. Some people will find the lack of an airbrush a problem. The special effects are very good and compare well with those in *Photon Paint*, though maybe not with *Photon Paint 2* which definitely has more features. Nevertheless, you can have lots of fun with this program. More next month... ■





■ These images demonstrate *Digipaint's* use of Transparency and Texture Mapping to varied effect.

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Lattice C ver 5

We are delighted to be handling the best range of C programming tools currently available on the Amiga.

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Requires

- Lattice C 5 runs on the A500 up but will certainly benefit from 1Meg of RAM and, for large programs, a hard disk.
- Lttice C++ needs 1.5Mb memory and a hard disk.

Price

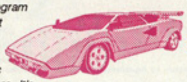
Lattice C 5.02 £229 inc., **Lattice C++** £299 inc.

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DIGITAL DELIGHTS

A great new real-time video digitiser provides **JASON HOLBORN** with hours of fun.

The Amiga certainly isn't short of its fair share of video digitisers. In fact, one of the first hardware add-ons to arrive for the machine was a video digitiser, in the shape of the now legendary Digi-View from Newtek. So what's so special about another digitiser?

From a specification point of view, Vidi doesn't offer anything that hasn't been done before. What is astounding about Vidi is the price: just under £100 for a real-time digitiser is quite simply an astonishing breakthrough.

The digitiser unit plugs directly into the parallel port of an A500. Unfortunately, using it on either an A2000 or an A1000 requires the additional purchase of either an extension cable for the A2000 or a gender changer for the A1000. The box features a phono socket for the video signal input and two knobs to control the brightness and contrast. Unlike most other units, Vidi also includes a lead to connect your computer up to an appropriate video source.

Frames

A digitiser is only as good as its supporting software, and so the quality and ease of use of the bundled software is all-important. Surprisingly, the bulk of the Vidi software was written in HiSoft BASIC, but don't be put off: it's a powerful piece of code and a fine example of the quality of HiSoft's product.

The software allows you to continuously grab and display frames at a maximum rate of four frames a second. During frame grabbing, Vidi stores the most recent sequence of frames in memory, which can later be easily flicked through using either the onscreen controls or an impressive 'Select Frame' option which displays all frames at once by employing a cameo representation of each frame.

If you have extra memory, Vidi can utilise this to store as many frames as memory permits. This is achieved by storing frames in Fast memory and then using the 68000 to rapidly copy them into Chip memory ready for display by the custom chips. As an example of memory usage, a 1 meg Amiga can store 22 frames with ease.

Window On The World

One particularly unique feature of Vidi is the ability to define a rectangular window which you can either grab into or around. All you have to do is to mark out a rectangle, specify whether you wish to grab in or outside the rectangle, and then hit the 'Grab' option and the digitiser will start grabbing to this predefined area, while leaving the rest intact.



■ Using the ability to define a window in a grabbed frame and then grab a new image into it, a mouse and the *Kick Off* trophy are inset.

Frames in memory can be animated by using the 'Animate' and 'Carousel' options, which flick rapidly through frames to produce animation.

Programmed Pixels

For the ambitious among you, Vidi also includes a disk-based library which can be called from just about any programming language to allow you to control the digitiser hardware from within your own programs. Using it, you could even rewrite the Vidi software if you really wanted to!

Vidi Verdict

Its price and grab speed are very much Vidi's ace card against Digi-View, its most obvious rival. Anyone who has used Digi-View will know that although it can undoubtedly produce some astounding results, the time taken to grab even a single, mono frame is horrendously slow: up to 10 seconds, to be precise. Compare this to Vidi's 50th of a second!

Most users don't have access to luxury items such as video cameras and so digitising directly from a video recorder will probably be Vidi's main use. The basic Vidi unit has been specifically designed with these users in mind, therefore allowing the best possible results from even the simplest of digitising set-ups. Although the basic Vidi unit will only grab in mono, the quality of the dithering techniques used gives the impression of a much larger colour scale. Where quality is concerned, Vidi produces some of the best results I've seen on any digitiser, at any price.

Bringing Vidi up to a comparable specification to Digi-View raises the price to about the same level as Newtek's unit, but the combination of real-time grabbing and superior results makes Vidi the choice for the pixel fiend on a tight budget. For the price, there is currently nothing to touch Vidi Amiga.

Vidi Upgrades

Vidi Amiga is available in several configurations. The basic unit, which retails for £99.95, is a 320 by 200, 16-colour real-time grabber, probably best suited to users producing graphics for display on both NTSC and PAL Amigas. Surprisingly, because Vidi locks on to its input signal, the unit can be used to grab from both PAL and NTSC video sources. A PAL version costs an extra £15. This is the same as the basic unit but allows 320 by 256 pixel resolution frames to be grabbed.

A top-of-the-range Vidi allows you to capture images in full colour (including HAM) for only an extra £20. Like Digi-View, colour Vidi uses red, green and blue filters and therefore requires a separate video camera to use it to its full. It doesn't allow true real-time grabbing of colour composite images because three separate mono frames have to be grabbed and then combined to produce the final colour image.

If you buy the most basic Vidi unit, Rombo will upgrade it to either of the above specifications for only the difference in price (£15 for PAL, £20 for colour). ■

VIDI AMIGA
£99.95 ■ All Amigas ■
Rombo Productions
Tel: 0506 414631

■ The 'animate' option allows a simple animation to be constructed from grabbed frames in memory.





WIN WITH POWERPLAY

Powerplay have been making joysticks for themselves and other people for many years. Their long experience has produced the very succesful Cruiser stick and now the new Crystal. To mark the launch of the new stick they are not only giving away 20 of them, but have offered a magnificent first prize of a Panasonic TV and video.

The Crystal is a robust, microswitched stick with twin microswitch fire buttons, suckers on the base and an autofire on the Turbo version. It's an excellent addition to Powerplay's previous stick, the Cruiser, which is not only stylish but has an adjustable sensitivity control.

The first prize is a 14" Panasonic TV (TC1480) and video (NVL 20) worth over £500. 10 runners-up will receive a red Crystal Turbo joystick and a further 10 winners will get a standard red Crystal.

QUESTIONS

1. How many pins/holes are there on the standard joystick socket/plug?
a) 9 b) 7 c) 5

2. How many microswitches are there in a Crystal joystick?
a) 2 b) 32 c) 6

3. Apart from plugged into a computer, where else might you find a joystick?
a) In an aeroplane
b) In an Indian temple
c) On the dodgems at a fun fair

RULES

Employees of Future Publishing and Powerplay are not allowed to enter. The judges' decision is final. No correspondence will be entered into.

HOW TO ENTER

Write the answers on the back of a postcard or stuck-down envelope and send it to: POWERPLAY COMPETITION, Amiga Format, 4 Queen Street, Bath BA1 1EJ. The entries should reach us by October 16th and don't forget to include your name, address and phone number on the postcard.

OVER £800 OF TV, VIDEO AND CRYSTAL JOYSTICKS UP FOR GRABS FROM POWERPLAY



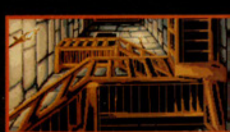


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SCREENPLAY



The infamous summer lull turned into a storm with games flooding in this month as software houses make a break from the tradition of holding the 'big' games back for 'surprise' launches at the PC Show. Of the games that have arrived, there's a small army of coin-op conversions ready to march into the shops. One of the hottest is the US Gold version of the Capcom hit, *Strider* - check out the review. But if arcade action's all a bit too mindless, fast or hard for you then you'll find there are plenty of other goodies on the next thirteen pages to make your mouth water.

STRIDER
GLASNOST OBLITERATED



■ At the start of the game, the flying alien must be destroyed and the pod collected to gain a drone.

US GOLD £19.99 ■ Joystick

STRIDER

FORMAT AMIGA GOLD

Russia and the Russian army are going to look very different seventy years from now: or so Capcom and US Gold would have us believe, with this conversion of the highly successful coin-op.

It's the eternal struggle of Good versus Evil again, as you take on the persona of Strider Hiryu (Hurrah!) to do battle with The Lord (Boo! Hiss!) and his wicked minions in various parts of deepest, darkest (and sometimes coldest) Mother Russia.

After being dropped off in Red Square, you must guide Strider across platforms destroying KGB agents with your trusty sword (which moves so fast it's just a blur) before they fire at you. As well as moving left-to-right, you also have the ability to jump straight up, leap left-right (doing a rather gymnastic somersault in mid-air), crouch and slide (which looks a lot like an American baseball player sliding for a base). Using these moves you have to jump chasms and leap from platform to platform, destroying the guards and taking out any ground-based or flying installations that happen to get in your way.



■ Now you can stay out of the firing line to let the drone do the work.

Mid- and end-of-level guardians make an appearance, and discovering how to polish them off will pose you a couple of problems. You could try to make life easier by picking up a couple of extra weapons: such as a drone, carried onto the screen by an airborne alien who releases it if you destroy him. This drone then circles round you and fires boomerang-like shots that can be used to take out hard-to-reach baddies.

The drone will also run along a platform occasionally, clearing a path for you. Other extra weapons include an extended sword, which gives you a limited number of huge, far-reaching swipes.

Make it to the end of the stage and defeat the end-of-level porky big 'ard monster, and you're transported to the icy wastes of Siberia for the next round where you'll have to fight off blood-thirsty dogs and the occasional mechanical gorilla. In the second and third rounds (for the third round, you're in a jungle in the southern lowlands, which are infested with boomerang-lobbing nasties) the action is pretty much the same: leap around the platforms, select the correct routes to take and destroy the end-of-level guardian.

Should you manage all this without losing all three lives (for each life you can take three hits, but any hit causes the removal of any extra weapons previously collected), and complete each stage of every level within the time limit (well, you didn't think things were going to be easy, did you?) it's back to Moscow to face the Grand Master of the Red Army.

GRAPHICS AND SOUND

One of the main attractions of a coin-op is its graphics, and, obviously, home users want graphics as close to the original as possible. Thankfully, *Strider* comes very close. Not only does it retain the impressive coin-op background graphics and sprites, but the smooth and fast animation remains too.

Sound is also good: the standard coin-op jingles are fine and effects throughout are satisfying, although the digitised speech is not the best ever heard.

JUDGEMENT

This is good stuff. Capcom did the biz with the original and USG have done the biz with the conversion, producing an enjoyable, playable, addictive and exciting game. Arcade fans who like their games spiced with plenty of action and rushing around are certainly going to enjoy this. It's no great mental exercise, but the immense playability is guaranteed to bring a smile to the face of every arcade action fan.

'Red Andy' Smith



■ The athletic Strider pulls off an excellent back-flip to get to the pod. But will it provide a drone or an extra-long sword?



■ This time it's a sword, which is bound to be jolly handy for dealing with those hard-to-kill end-of-level guardians.



■ Stage Three is set in the snowy wastes of Siberia, and the mid-level guardians are in the form of mechanical animals!



■ These robots should learn never to turn their backs on a mean sword-wielding dude like you! Things are looking bad for them.

GRAPHICS	8
SOUND	8
INTELLECT	2
ADDICTION	8

OVERALL 91%

RATINGS EXPLAINED

GRAPHICS

Good graphics are an important part of any game: if the power is there, it should be used to the full. Both still and moving graphics come under scrutiny in this rating, but remember, graphics alone do not a game make...

SOUND

With stereo capabilities the last thing you want to hear are Spectrumesque beeps, right? Title tunes and effects all add atmosphere to a game and good sound can greatly increase your enjoyment.

INTELLECT

How much real thought do you have to put in to play the game? Just because a game's mindless doesn't mean it's bad, but a game with a high Intellect rating says immediately you'll need to think to gain maximum enjoyment.

ADDICTION

How easy is a game to pick up and play? How much sheer fun will you get from it? Will you keep coming back? Important questions, answered by the Addiction rating.

OVERALL

A percentage mark that takes into account all the ratings, plus added extras like price, packaging, documentation...

THE TEAM

Andy Smith, left, who was with ACE right from Issue One, is a 'twelve-hours-a-day' games fan and one of life's natural gamesplayers. He loves any type of game, be it a shoot-em-up, strategy game, arcade adventure... *Bob Wade*, right, started reviewing with Personal Computer Games and has worked for Zzap!64, Amstrad Action and ACE. There's no-one in the business with a better idea of what makes a game.

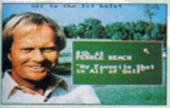




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ACCOLADE £24.95 ■ Mouse

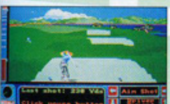
JACK NICKLAUS' GOLF



■ The first hole of Jack's Greatest 18 is introduced by the world-famous golfer himself.



■ The overhead view shows a problem: a lake lying between the tee and the green.



■ The drive is succesfully played and sits nicely on the fairway.



■ At the new ball position it's 214 yards to the pin, which calls for a 4 wood to be employed.



■ The shot was straight, but short: however, a pitching wedge will get you on the green.

GRAPHICS	5
SOUND	2
INTELLECT	5
ADDICTION	6
OVERALL 78%	

A golfing legend, winner of more major championships than anyone else, much demanded course designer and all-American hero: the Golden Bear. A golf game can't come with a much better endorsement than Jack, but does it live up to his reputation?

Three courses are available: Castle Pines in Colorado, Desert Mountain in Arizona and Jack's Greatest 18. The Greatest 18 are culled from some of the most famous courses in the world, such as St Andrews, Augusta, Pebble Beach and Royal Lytham.

One to four players can take part, any or all of whom can be computer controlled. There's a choice of several opponents of varying ability, including Jack himself, who is of course incredibly good. There is also a choice of game type: 'stroke play' or 'skins.' In skins the players play for prize money on each hole, the prizes increasing as they go along. Stroke play is the usual score-per-stroke, with the overall score plus or minus par kind of system.

Before playing each hole you are given an overhead view of it, which can be called up again while playing. You also get Jack's words of wisdom on the hole. Then it's off to the tee, where the view is from behind the player, looking towards the green and the pin.

The club is selected from a driver, two woods, eight irons, two wedges and a putter. Once the club is chosen and the shot aimed, the tricky part of swinging the club has to be done. This is a matter of timing mouse clicks to initiate the swing, to stop the power bar going upwards and then to stop it going down (for the accuracy). Mistiming clicks will result on the upswing in shots going long or short and on the downswing in the ball hooking or slicing.

The computer players do everything automatically: and slowly too. A lot can be learnt from watching them, particularly if you have a similar shot to play. There are various factors affecting a shot – windspeed and direction, sand, slopes and rough. On the putting surface there are only breaks to cope with, but the aiming of putts is very tricky.

If you are not happy with your performance you can always go off to the driving range and the practice green, or even practice on a few individual holes.

GRAPHICS AND SOUND

The courses are picturesque, with trees, bunkers and lakes making up some lovely views. The only problem is the terribly slow speed at which the graphics are drawn. The view is redrawn for every shot so there is a lot of hanging about waiting for it.

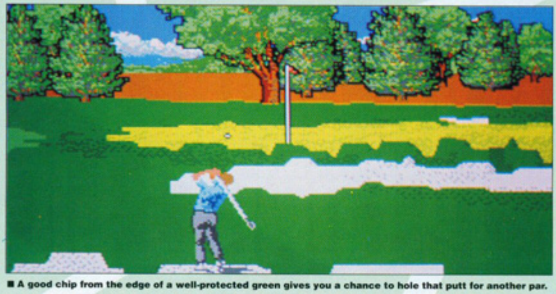
The sound is limited but what is there is good: some excellent sampled speech at the beginning and realistic hitting and bouncing noises during play.

JUDGEMENT

The slow speed of play is annoying but not terminally so: just chill out, relax and take your time playing. The three courses are challenging and dangerous and the opponents provide good competition. It's a game you will be playing for years to come: as long as the old back injury doesn't flare up again... ***Bob Wade***



■ A dangerous tee shot awaits because of the overhanging trees on the right. Why not aim left and slice the ball back towards the pin?



■ A good chip from the edge of a well-protected green gives you a chance to hole that putt for another par.

SYSTEM 3 £19.95 ■ Joystick

DOMINATOR

It's comforting to know that some things will never change: the Queen's speech on Christmas Day, Amstrad returning record profits for some quarter or other and Earth being attacked by hordes of nasty, slimy aliens.

No-one's yet produced a game based on the first two, so this must be a game based on the latter. The aliens in question are a touch nastier and slimier than the average two-headed, green-skinned jobs though, because they would actually like to eat Earth and its inhabitants! What's needed is someone to jump into a spacecraft and fly right into the mouth of the boss alien, to blast away at its vital organs. Fancy the job?

In case you hadn't guessed, it's a multi-stage, horizontally and vertically scrolling shoot-em-up (scrolls vertically for the first stage, horizontally for the second and so on). The idea is to survive each level by shooting at and destroying the waves of flying aliens (and ground installations later on) and avoiding crashing into the host monster's insides. Survive to the end of the level and you have to take on a guardian before moving to the next stage.

As you'd expect, there are extra weapons to collect including rear guns and a time-based auto-fire facility, plus extra lives and smart bombs. The weapons are collected by flying over weapon icons that appear periodically. Fortunately, any extra weapons you do collect are carried from stage to stage, but if you lose one of four lives, you lose the weapons.

GRAPHICS AND SOUND

The backgrounds are well drawn and menacing, but the sprites are dull and uninspired. The collision detection is ever so slightly off, and on more than one occasion you'll be shouting "That was nowhere near me!" As for sound: well, it's just as bad. The title music is fine but the effects are mediocre and surprisingly slow. Destroy a wave of aliens then stop firing, and for a moment you will still hear shooting. *Dominator* will not be remembered for graphics and sound.

JUDGEMENT

Some would argue whether there's room for yet another shoot-em-up in the marketplace anyway, and others would argue that there's always room for a game that offers a good blast, especially if it has new features.

What there isn't room for is a game with no new features, that doesn't offer a good blast and has limited lasting interest. *Dominator* certainly qualifies on the last three. *Andy Smith*

GRAPHICS	4
SOUND	2
INTELLECT	1
ADDICTION	3
OVERALL	**28%**



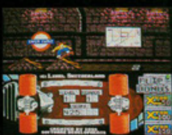
■ Sneaking through the first stage while trying to avoid being grabbed by those large 'arms' that shoot out from the sides.



■ Make it to the end of the stage and there's the end-of-level guardian to be destroyed before you can progress any further.

LINEL £19.95 ■ Joystick

SKATE OF THE ART



■ Flipping in the Underground.

Twenty stages of viewed-side-on skateboarding action. Controls are limited: scoot (for speed), lean back, lean forward and flip are the ones you'll use most as you move left-right across the screen at great speed, jumping obstacles and shooting up and down ramps. Though there are twenty of them, the levels are all short and it's simply a question of remembering which moves come in which order and hitting the fire button at just the right moment to get through them. Should you misjudge a jump, however, you go sprawling across the road and have to restart the level with one of your initial five lives gone. Make it through the stage and you are rewarded with a 'flip' bonus, decided by how many jumps you did, plus a time bonus, decided by how quickly you finished.

Skate of the Art, so far from being state of the art, is basic stuff indeed. Although it looks all right, it is simple in design and quite frustrating in gameplay. Even hardened 'boarders out there will find their interest evaporating quickly with this one. ***Andy Smith***

GRAPHICS 6 / SOUND 5 / INTELLECT 2 / ADDICTION 3 / OVERALL 38%

DIGITAL INTEGRATION £24.95 ■ Keyboard and Mouse or Joystick

F-16 COMBAT PILOT



■ Flying low and fast in a dogfight mission. There's an enemy in range and targetted so prepare to let loose with one of those AMRAAM missiles, then get out of there quickly...

If you didn't want to be a fireman when you grew up, chances are you wanted to be a jet fighter pilot. And for all but a very few of us, a combat flight sim is the closest we'll come to realising our ambitions.

DI's offering, based on the popular General Dynamics' F-16C, has Mirrorsoft's excellent *Falcon* – based on the same plane – to contend with, so the new game will have to be good to compete.

For a start, there are four basic games: training (always a good place to start), separate missions (five in all), a campaign game and a dogfight option.

Training allows you to experiment with the plane, practice landings and even gain familiarity with the weapons. Once confident, try the separate missions which you need to complete in order to be able to take part in the campaign game. These missions include a

OCEAN £24.99 ■ Joystick

ROBOCOP

Unlike most film tie-ins, the computer versions of *Robocop* were developed at the same time as the Data East coin-op, so Ocean had a choice: to either make a game purely based on the film (something like *Platoon*) or to make a straightforward conversion of the coin-op. In the end, the game has wound up closer to the arcade machine rather than as a pure, original interpretation of the film.

The game is set in the Detroit of the future, where the police department is being run by a corrupt private company called OCP.



The company has big plans to robotise the police network, but a small setback with the prototype machine (ED 209) means they have to re-think their plans, eventually coming up with the idea of a half-human, half-robot cyborg.

All they need is a volunteer body donor. A young cop called Murphy just happens to fit the bill after being badly shot up in a vicious attack. OCP robotises Murphy and puts him on the streets without completely erasing his memory, and he soon goes rogue and sets about hunting down the gang who nailed him.

It's a multi-stage 'strolling' shoot-em-up, with the player controlling Murphy as he wanders about his business of upholding the law. Baddies appear at first-floor windows and on the street and the general idea is to either shoot them or clock 'em on the jaw with a titanium-packed punch.

They shoot back, every hit they score reducing your energy until it runs out: game over time. Fortunately there are extra firepower symbols and extra energy that can be collected by smashing

scramble scenario, in which the idea is get airborne ASAP and down some aggressive enemy MiGs, and an air-to-ground one in which you have to tackle an enemy tank battalion. Other scenarios include reconnaissance, runway bombing and bombing missions deep in enemy territory.

Complete every mission and you're allowed to join one of eight squadrons fighting a campaign game, in which the plan is to defend the country against an invading enemy force. You decide the missions and where to hit the enemy in order to hurt him most, and to help in the fight you can send up to four other aircraft on separate missions against other targets. Wipe out the enemy force and you'll be promoted to another squadron where things begin to get somewhat tougher.

The only way to get to the campaign game, though, is to complete each mission and save the results to disk (creating a pilot's log). If you've had enough of the solo stuff, connect up a couple of machines with a modem cable and take on a human opponent in a gripping dogfight that will really keep you biting those fingernails.



■ Check the mission and select your weapons accordingly...



■ Even with electronic ground control assistance, landing's no picnic.



■ Taxiing onto the runway ready to take off for a night mission.

GRAPHICS AND SOUND

Everything is viewed from within the cockpit – never from a position outside the cockpit, so you don't see an external view of the plane – in fast, colourful 3D with options to let you see what's happening behind and to either side. Though the instrument panel is laid out in a standard fashion you are able to switch the position of some of the instruments to suit, which is handy. Sound is great, and though most of it's limited to the drone of the engines, it is well done.

JUDGEMENT

There's plenty of action to suit the combat-hungry and the attention to detail will please and delight the flight purists. Once you get into the campaign game or take on a human you'll find yourself playing for hours at a stretch and coming back to it time and time again. As DI keep proving, when it comes to simulations – especially ones involving aircraft. – they're very hard to beat. ***Andy Smith***

GRAPHICS	8
SOUND	5
INTELLECT	5
ADDICTION	8
OVERALL	**94%**



■ Robocop patrols the streets of downtown Detroit, shooting punks he meets on the streets and who fire from first floor windows.

through marked crates. Collect the symbol and your gun suddenly has things like three-way firing or super-big shots. Sadly, the extra weapons only last for a set number of shots: use them sparingly.

Reach the end of each stage and there's an end-of-level guardian to be destroyed before progressing to a bonus stage where you can practice your shooting or have a bash at putting a photofit together. For each level the object remains, effectively, the same, to work your way through the stage and destroy the end guardian. All that really changes is the setting: in the junkyard, inside the drugs factory and so on.

GRAPHICS AND SOUND

The title and in-game tunes are all right but not brilliant, and the same can be said for the spot effects and the occasional burst of digitised speech. The background graphics and sprites are good and the whole thing is smoothly animated. Just about the standards expected from a coin-op inspired game.

JUDGEMENT

It's a nicely put together platform shoot-em-up which fans of the film will be well pleased with. As a game in its own right it stands up, but it's not terrific and you'll complete it sooner rather than later. From then on, the only real reason to keep playing lies in constant attempts at improving your score. ***Andy 'Half-Human' Smith***

GRAPHICS	8
SOUND	7
INTELLECT	2
ADDICTION	7
OVERALL	**73%**



■ OCP's first attempt at a robot cop (ED 209) is the first end-of-level guardian, and a mean one too! So shoot him in the head!

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VOYAGER

In 1977 Voyager II was launched – inviting all life forms in the Universe to visit our planet. Get ready – company's coming. Luke Snayles – returning to Earth after completing a 50 year sentence of "investigative exploration" is not a man you'd wish to meet. After half a century of solitude, he's bored and hungry. On Earth the gate crashers are about to arrive – they are the ROXIZ, but Snayles has got other ideas – no-one, but NO-ONE is going to spoil his home-coming party!

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RELINE £24.99 ■ Mouse and Joystick

OIL IMPERIUM

A one-to-four player money-making game based on the glamorous life of an oil company tycoon, where time is money.

Playing solo, the first thing to do is decide which company to head and then think about how to spend the juicy five million dollars you're given at the start of the game. Buy a yacht? Pay your Poll Tax? But five 'very, very big ones' don't get you too far: in fact, they just about buy you permission to drill in one of the eight available regions of the world. Fortunately you'll have enough change to set up a derrick and a storage tank.

By this time it'll probably be the end of the month (game time) and as the game runs in monthly turns, that means the other companies get to make their moves.

Now you're in business. The field is producing and it's time to sell some of that black gold and turn it into greenbacks. The price of the oil depends on supply and demand and can range from about $3 per barrel to over $20. But selling it isn't always easy: you'll have to get it to market by entering one of the arcade sub-games, in which you have to build a pipeline from a-b before the computer builds one from c-d. Complete it, and the dosh starts rolling in, allowing you to think about setting up new rigs and more storage tanks. Then it's a case of increasing your profits and becoming rich.

This is all well and good when things are going smoothly, but accidents happen and occasionally you'll be informed that either your storage tanks have blown up or some oilfield is on fire. For the latter case you can send in fire-fighters – there's no guarantee they'll put it out – or play another arcade sub-game where you run around planting explosives to seal the burning wells. And if you want to get nasty you can hire saboteurs to do some evil deeds aimed at your competitors, or hire investigators protect yourself.



■ Hurray! It's a gusher! All you need to do now is sell the stuff.



■ Keep the red dot in the centre to avoid smashing the drill head.

GRAPHICS AND SOUND

Sound effects are limited but are OK, as are the infrequent, but jolly, tunes. The graphics are fine, everything is well drawn and the animation in the sub-games is satisfactory. It's not a visually or aurally stunning game, but then it's not designed to be.

JUDGEMENT

Initially, Oil Imperium is good fun. The computer players are tough but not as devious as real human players and if you play with a couple of friends you'll have a great time. There are several games to play – different victory conditions – but even so it soon becomes boring and after a couple of good sessions you'll find the gameplay very repetitive. Nicely done and highly enjoyable in the short term, but lacks the detail to keep your interest up. ***Andy Smith***

GRAPHICS	7
SOUND	5
INTELLECT	5
ADDICTION	7

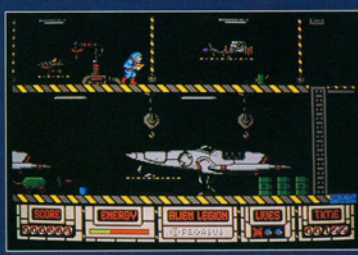
OVERALL 66%

GAINSTAR £24.95 ■ Joystick or Keyboard

ALIEN LEGION

Eek! Guess what? Aliens have invaded and only you can save the world from misery and damnation. In the guise of Captain Cosmose, you must work your way through this horizontally-scrolling platform cum shoot-em-up blasting away at the little alien baddies and avoiding their shots. Moving around is mostly left-right with short and long jumps to enable you to hop between platforms or across gaps. Every hit the aliens make reduces your energy bar, which can be topped up by grabbing potions.

Not a bad game, it looks and sounds all right and it'll take a while to work through four levels: but it's simple and adds nothing new to this genre of game. ***Andy Smith***



■ Run along the platforms, shoot the aliens, collect the energy potions: you know perfectly well what the drill is by now...

GRAPHICS 5 / SOUND 5 / INTELLECT 2 / ADDICTION 6 / OVERALL 52%

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PRINTING DIRECTION	bi-directional, with optimised head movement
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LINE FEED	– 1/6in (4.23 mm), 1/8 (3.17 mm) and 7/72 in (2.4 mm); – n/216 in and n/72 in.
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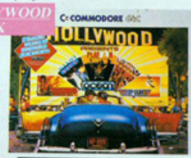
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FIENDISH FREDDY'S BIG TOP OF FUN

MINDSCAPE £29.99 ■ Joystick

Roll up! Roll up, for yet another game set inside the Big Top! Our eponymous hero Fiendish Freddy may be a wizz in the ring, but he's no financial magician, and now the fascist bully-boys from the bank want the $10,000 they lent him back: and they want it back by tonight. There's only one thing poor Freddy can do: make the money by taking part in six circus events, to earn dollars rather than points when he is judged at the end of the event.

Event Number One is High diving. Climb to the first board, the lowest, jump off and go into a tuck until a prompt tells you what stunt



■ Knife throwing: pop the balloons before the timer runs out and try not to stick too many in the spinning girl...

to perform (sitting in the Lotus position, standing like King Tut and so on) on the way down. Then you must press fire and move the joystick to the correct position to perform the stunt, before returning to the tuck and wiggling the joystick in an attempt to stay on target to enter the pool. For each height of board you perform successfully, not only do you climb to the next board, but the pool also becomes smaller: right down to cup size.

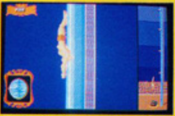
Event Two: unicycle juggling. Ride left-right and catch and juggle the objects thrown by your seal assistant. Occasionally a rival clown will lob bombs and rockets at you which have to be caught and lobbed off-screen before they explode. This clown character is a nasty piece of work because he does his best to disrupt you during every event, so beware!

Event Three: trapeze. Swing from trapeze to trapeze by timing your release. There are paper hoops and flaming hoops to jump through as well, so timing is all-important.

Event Four: Knife throwing. Fling daggers at balloons pinned to a revolving wheel: which just happens to have a girl tied to it! Pop the balloons and miss the girl and you get a fresh set of knives, a new set of balloons and a shorter time limit.



■ This fine figure of a lunatic prepares to high dive into a sponge.



■ Thankfully it's wet, so he'll have a soft landing.

Event Five: High wire. Balance your way from one end of the rope to the other by some athletic and skillful joystick wiggling. Sixth and finally: Human Cannonball. Position the landing target (the distance depends on how much gunpowder you allow your assistant to load before that awful clown comes and messes things up), enter the cannon then launch yourself when the cannon is at the right (hopefully) angle. And there you have it. Fail to earn the approval of the judges and the ten grand, and it's curtains for the circus.

GRAPHICS AND SOUND

Sound first: the jolly circus-like tunes will really start to get on your nerves after a while, which is a shame because the effects that are there are good: there's just too few of them. The graphics are great, the animation is lovely, the characters have a humorous cartoon quality and the overall look of the game is impressive.

JUDGEMENT

What's not so impressive is the gameplay. Each event is simple to play and the tedious amount of disk swapping (three disks total make up the game) gets on your nerves sooner rather than later. FF's BTOF ends up being another cobbled together collection of slightly better than average games which look loads better than they actually play, and once you've seen all the various screens you'll tire of it quickly. ***Andy Smith***

GRAPHICS	8
SOUND	6
INTELLECT	3
ADDICTION	6
OVERALL	**59%**



■ Unicycle juggling: catch the bombs and rockets before they land and explode.

VIRGIN MASTERTRONIC £19.99 ■ Joystick or Keyboard

GEMINI WING



■ Mutant millipedes and other creepy crawly nasties make dive bomb attempts as you make your steady way through Stage One.

The SoonDay Spirit newspaper has a good deal to answer for: not only are its endless 'Mutant Martians Turned My Son Roger Into A Hatstand' stories of a, shall we say, dubious nature, but now it's managed to upset the rest of the Universe with a particularly insidious example of the dubious art of hack journalism.

So, what do you when you're an alien with a grudge? You invade Earth and attempt to destroy it, naturally. Which is just what the rest of the sentient universe has decided to do. But guess what? They hadn't figured on you being a pilot in the crack Gemini Wing space fighter squad.

Thus the scenario is set for this vertically-scrolling shoot-em-up involving one or two players. Duck, dive, bob and weave your way through stage after stage of invading aliens, dealing death to anything that happens to get in the way of your forward-firing lasers. Quite apart from the flying nasties, there are ground-based worm-like aliens that join in the hail of fire, so get in quick to destroy them before they obliterate you.

To make life a little easier you can pick up the occasional extra piece of fire-power called a Gunball, which some aliens drop when they're destroyed. Fly over these to collect them, after which they trail behind your craft until used. In a particularly tight spot, hold down the fire button and a Gunball is activated, functioning rather like a smart bomb. The effects, however, vary: for example, you have the Spiralling Circle of Death which explodes and takes out any aliens it hits as the discs fly away from your ship: then there's the awesome Windscreen Wiper of Death (a lovely, lovely name) which shoots out from both sides of your ship and destroys any aliens that get in its way as it cuts a swathe up the screen.

At the end of each stage there is an end-of-level guardian to dispose of before starting out on the next, more difficult, level. Just like its coin-op parent, *Gemini Wing* offers the player the chance to continue the game when all lives are used up, although only three restarts are allowed.

GRAPHICS AND SOUND

Colourful sprites that are smoothly animated and well-drawn backgrounds conspire to make the game look good. Sound is good too, with arcade jingles throughout and occasional spot effects.

JUDGEMENT

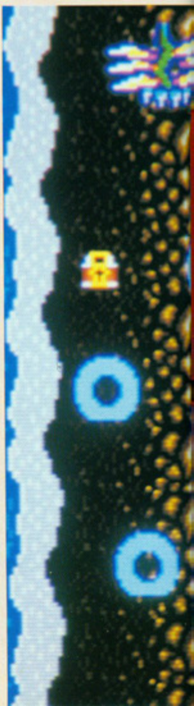
Yet another vertically-scrolling shoot-em-up. All the bits are there – extra weapons, guardians and so on – but there's little that's at all new (the trailing Gunballs are nice but not revolutionary). It's about as difficult as you'd expect from a conversion (with the classic unreasonably difficult Stage Three) but the simultaneous two-player option increases the fun for a while.

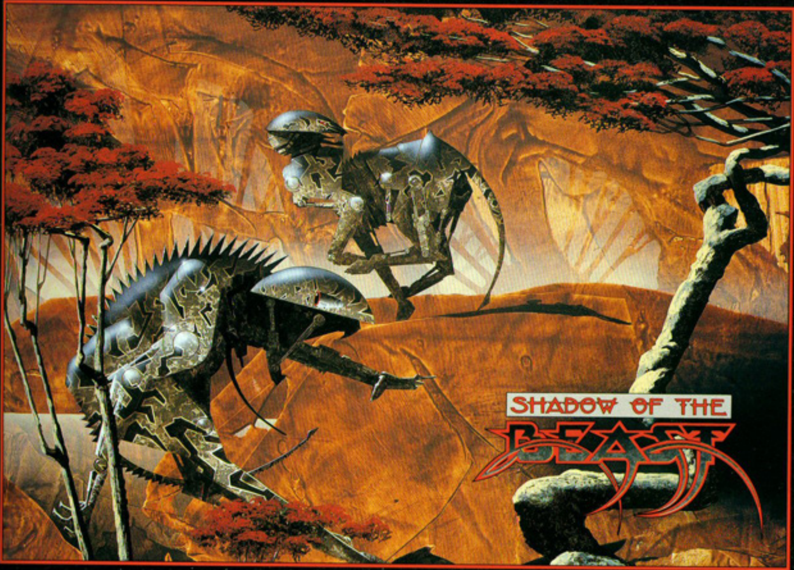
Andy "Flash Gordon" Smith

GRAPHICS	8
SOUND	8
INTELLECT	1
ADDICTION	7
OVERALL 68%	



■ The balloon-blowing end-of-level walrus or turtle type thingy.







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MIRRORSOFT £24.99 ■ Joystick

XENON 2

AMIGA FORMAT GOLD



■ Catch the bubble to gain some cash and that 'Z' for a smart bomb.

There's only one thing wrong with gaining a reputation (dubious or otherwise), and that's having to live up to it.

The Bitmap Brothers certainly have a reputation to live up to: a very good one, after the high standards they set with their earlier releases *Xenon* and *Speedball*. These darlings of the press (have you ever noticed how it's almost impossible to flick through a computer mag without seeing them in pop star pose at some bash or other?) have decided that gamers want a good ol' blast, and reckon they can deliver the goods with *Xenon 2: Megablast*.

'Megablast' is actually the name of your ship in this five



■ The first end-of-level guardian.



■ In the extra weapons shop.

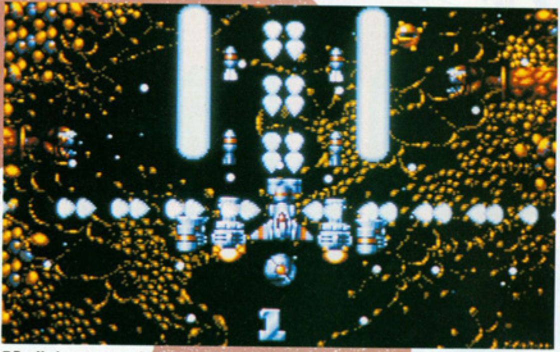
stage vertically-scrolling shoot-em-up where it's just you against the Xenites. You remember the Xenites, don't you? Well they remember you, from the original Xenon game, and they haven't forgiven you either: which is why they've planted five time bombs throughout history that need destroying. And yup, you're just the person for the job.

Your journey through the game follows the path of evolution with the aliens for each stage reflecting the period: from simple creatures dating back to prehistoric times up to and including metallic nasties from future space. As you would expect, almost everything is aggressive so it's best to blast everything that moves and anything that doesn't, too. Initially you're armed with a front-firing gun, but extra weapons can be collected by shooting and collecting power-up symbols that occasionally appear on screen. By far the best method though is to collect the small bubbles that appear on screen after certain aliens or waves of aliens have been destroyed. Why? Because these bubbles are actually money that can be spent in the weapons shops that lie halfway through and at the end of each level.

There's an impressive array of weapons available, from things like side-shot and rear-firing cannon to missile launchers and lasers. And, as you might expect, the more destructive the weapon, the more it costs: so keep going after those cash bubbles!

And those extra weapons are going to come in very handy once you come across the end- (and, later in the game, mid- too) of-level guardians. But beware: you may find you've just splashed out on a porky rear cannon to find the next level crawling with aliens that cling to the sides of the scenery, so life can seem a little unfair at times.

There are a couple of things going for you, though. Every time you lose a life you restart with all the extra weapons you'd collected and there are a couple of 'continue game' options too. And to make a nice change, the scenery doesn't kill you no matter how often you bash into it.



■ Buy Nashwan power and you get 10 seconds of total destructive power. Shame it's only 10 seconds!



■ Approaching a meeting with the second end-of-level guardian.

GRAPHICS AND SOUND

Well, with the intro and in-game music written by Bomb The Bass, it should be, and is, good. The effects are fine too, though not as impressive. As you must have seen from the demo of the game on this month's Coverdisk, the graphics are terrific. Not only are they well-drawn and colourful, but everything in the game moves quickly and surprisingly smoothly. A winner in the graphics and sound departments.

JUDGEMENT

The age-old problem: it's just another shoot-em-up, some would say, and there are plenty of them around already. So what makes this stand out? The gameplay. It's fast, furious, addictive, tough, playable and it sounds and looks fantastic. *Xenon 2* has everything a shoot-em-up needs and more besides, making it arguably the best of its type to appear to date and a definite 'must purchase' for anyone who doesn't mind wasting the odd hour or two enjoying some mindless blasting. A word of advice though, make sure your joystick has very rapid auto fire: life can be hell otherwise. ***Andy Smith***

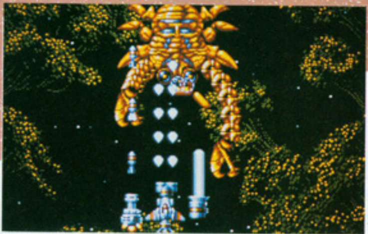
GRAPHICS	9
SOUND	9
INTELLECT	3
ADDICTION	9
OVERALL 93%	



■ Side shots are needed here!



■ Destroy this chap and the pod on top spews out masses of aliens.



■ Another guardian, this time with a very dangerous extending claw!


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PSS £24.99 ■ Mouse or Keyboard

WATERLOO

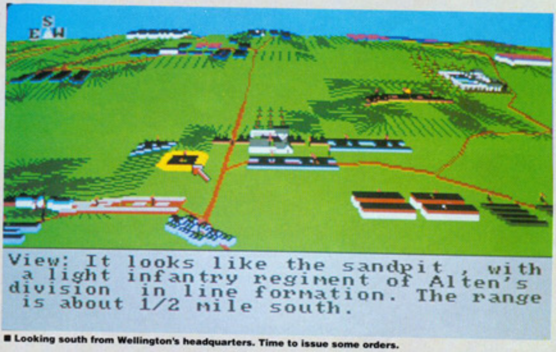
To wargaming fans, the name Dr Peter Turcan may, as yet, be unfamiliar. But ST and PC fans have experienced Peter's earlier work *Borodino*, a wargame based on the conflict between Napoleon and the Russian Prince Kutusov. Now Amiga owners have the chance to re-fight one of Napoleon's most famous battles in this one or two player simulation.

Most wargames give the player an unrealistic view of the battlefield: failing in the attempt to recreate history because they invariably allow the player to see things that the historic commanders were unable to. *Waterloo*, however, is the closest a wargame has come to sticking a player in the commander's boots.

You view the game through the eyes of either Napoleon or Wellington, and issue orders to your subordinates – who in turn issue orders to their subordinates – based on what you see from your position on the battlefield and messages received from runners. To familiarise yourself with the game system and the battlefield you can view the action through the eyes of other commanders on the field, or from major landmarks.

The orders you're able to issue vary in complexity from vague commands like: 'Lobau, give support to Reille' (leaving the computer to decide how Lobau can best give his support to Reille) to things like: 'Lobau, form a defence line from the east flank to Frichermont linking with D'Erlon'.

Once you've decided which orders to issue (eight per turn, each turn representing fifteen minutes of real time, the battle lasting from 11.30 am until 9.30 pm), the orders are sent by messenger to their destination. Obviously, the further away this is, the longer it's going to take for the orders to get through (if they do at all, because riders are just as prone to getting themselves killed as anyone else) so things can become very confusing: just as the battles were.



■ **Looking south from Wellington's headquarters. Time to issue some orders.**

GRAPHICS AND SOUND

Forget sound, it's not important. The 3D display however is great. It takes a short while for the screen to update, but that's survivable. A short animated sequence of the cannons firing, which is optional, is a nice touch, but for the majority of the time you're looking at blocks representing the units.

JUDGEMENT

If you're looking for a wargame that's fast, simple and easy to play then look elsewhere: but if you're looking for a wargame that provides real challenge, will keep you playing for hours on end and which takes time to play well, then this is for you. The game system is easy to get to grips with but it's not for your casual browser.

Andy Smith

GRAPHICS	7
SOUND	N/A
INTELLECT	8
ADDICTION	8
OVERALL	**92%**



■ **Of course, by the time the orders get there it may be far too late...**



■ **The stick-men graphics may not be brilliant, but they do the job.**

HEWSON £24.99 ■ Joystick and Spacebar

ASTAROTH

In a series of catacombs, deep below ground, Astaroth, the Angel of Death, rules over a fetid underworld domain. Surrounded by the vile minions she has summoned up to protect her, she is free to satisfy her evil will.

No-one has dared to face this she-devil. Until now. A single, lone man, Ozymandias, has decided to enter Astaroth's forbidding lair to defeat the demoness.

The catacombs are represented by a series of interconnecting flick-screens, which are entered via left and right, top and bottom. Ozymandias walks and can jump, but has no immediate defences save for ducking from flying bats and harpies which inhabit the carved tunnels. Only forward planning and quick reactions can save him from the variety of beasts which inhabit this world: contact with Astaroth's underlings serves only to rid Ozymandias of his mind powers, shown by a shrivelling brain icon. As each brain disappears completely, so a life is lost. Five lives later, Astaroth has won.

As Ozzy makes his way through the labyrinth, he can collect up to nine mind powers which are stored in bell jars in different locations within the catacombs. The powers confer upon Ozymandias different abilities, such as levitation (to float up to higher floors); pyrokinetics (creates fireballs); night vision (enables him to see in those rooms which are in darkness); and so on. Specific mind powers are needed to defeat Astaroth's three Guardians – the Sphinx, the three-headed Hydra and Marilith Demon – and only once all nine have been collected can Ozzy attempt to face the Angel of Death in combat.

GRAPHICS	7
SOUND	5
INTELLECT	5
ADDICTION	4
OVERALL 41%	





■ (Above) Contact with the green bell jar, above, provides Ozymandias with the power of levitation: the results of which are shown in the picture (Right).

GRAPHICS AND SOUND

Pete Lyon's morose graphics are undoubtedly very good, even though they have been unashamedly ripped off from HR Giger's Necronomicon designs. Ignoring artistic plagiarism, however, it must be said that the phallic and vaginal symbolism is far from tastefully done – especially since it plays no part in the game and has obviously been included in an effort to increase sales through sensationalism. The accompanying soundtrack is pleasant enough, but is too up-beat to serve as an atmospheric accompaniment to the task at hand.

JUDGEMENT

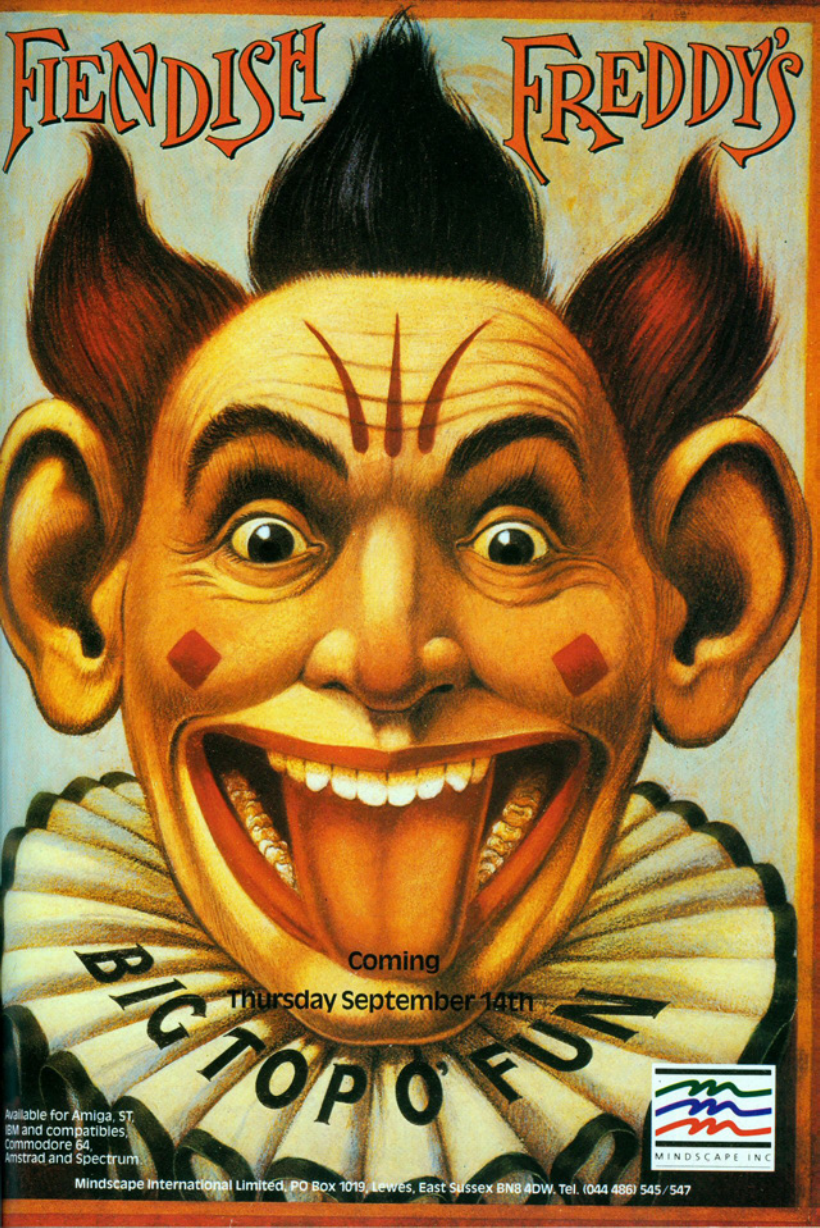
The Amiga isn't being pushed very hard, technically: since *Astaroth* lacks any scrolling, the sprites are pretty small and the animation minimal. However, while the CPU sits there twiddling its electronic digits, the game still manages to provide poor collision detection and poor, slug-like movement for the main character. Not impressive.

This lack of speed makes avoiding the many obstacles initially tricky and ultimately infuriating; while the simple search 'n' collect gameplay is only marginally spiced up by the addition of progressive mind powers. *Astaroth* is a jaded old game concept tarted up with graphics of a sensationalist nature to add some much-needed interest. Bit of a sheep in wolf's clothing, really.

Steve Jarratt



■ Now, what does that pillar on the left look like? I ask you! The symbolism is quite obvious...



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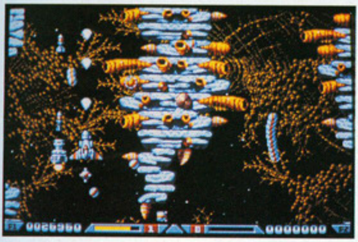

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Have we got a hot one for you this month! **JASON HOLBORN** takes you through the contents of this month's amazing *Amiga Format* Coverdisk.

DISK EXTRA

XENON 2

PROGRAM: BY IMAGEWORKS
FILES: XENONII, XENONII.DOC



The aliens with the attitude problem are back... and this time they're bringing their little alien buddies along to wreak havoc throughout the universe. Yep, those Xenites were mighty annoyed when you kicked their butts in the first instalment of the *Xenon* saga, and this time around they're out for one thing... your head on a stake (or pork if a nice piece of steak can't be found).

Those devilish Xenites have been planning your downfall for over a thousand years after their humiliating defeat at the hands of your predecessors. Now the very fabric of time is in danger from their fiendish plans. Those dastardly chappies have planted five time bombs through history. Unless these time bombs are defused, the explosion will cause life, the universe and everything to end in an instant, therefore causing '42' to become an irrelevant number.

Getting Going

Joystick in Port 2? Check. Brain switched on? Check. Reactions in overdrive? Check. All systems are go... Now is the time to load our exclusive *Amiga Format* demo by inserting the Coverdisk into the internal drive at the 'Insert Workbench' prompt. Good luck, Time Pilot: you're going to need it! ■

■ That missile launcher is a handy extra weapon when you meet the caterpillar-like alien waves.



■ The shopkeeper, speaking a strange alien tongue, offers a range of goodies for purchase.



■ Blasting away with the laser cannon you bought in the shop as you continue the level.

£800 UP FOR GRABS! We must be insane! But it's true: we want to give you money! All you have to do is write a super-hot program for the Amiga and, if we decide to use it on the *Amiga Format* Coverdisk, you could be living it up in style! SEE PAGE 63 FOR DETAILS.

XENON 2

Try your hand at the game every 16-bit computer owner has been talking about. After the immensely popular *Xenon* and the highly acclaimed *Speedball*, the Bitmap Brothers come up tops with another game to redefine the leading edge in arcade action.

ACCESS!

Ok, we admit it. We've been neglecting you communications buffs lately and so to make amends, we have a powerful communications program for your perusal that features more bells and whistles than a fairground organ.

WORKBENCH HACKS

Enough of this seriousness... these disk pages are getting far too serious... and they're not even faintly suspect. *Amiga Format* presents another dose of the very best in silly software.

POPDIR

Question: when is an empty disk a full disk? Answer: when you try viewing a disk from Workbench that contains files that don't have icons. With PopDIR, you can discover those hidden files that other Workbench utilities cannot reach.

AMIGA FORMAT DEMO



Thanks to those nice chaps at 17 Bit software, *Amiga Format* has its own demo, produced especially for us to share with you on our Coverdisk. Load it up and pump up the volume!

DPAINT TUTORIAL



You've read the article, you've played with the paint package, now try your hand at facial architecture with our selection of clip art files.

ALWAYS MAKE A COPY OF YOUR DISK!

DISK NOT WORKING?
Then see page 62-63, fast!

POPDIR

PROGRAM: PUBLIC DOMAIN
FILES: POPDIR, POPDIR.DOC

When the WIMP-based computer was first devised, it seemed to be the solution to every new computers user's problems: complete control of every aspect of a computer without ever having to get too technical. Unfortunately, that original dream never quite materialised and even today, with machines as powerful the Amiga, the new computer user is still often held back by a plethora of technicalities.

One of the most common complaints of first-time Amiga users is that, from Workbench, only files on a disk that have icons are visible. If a file doesn't have an associated '.info' file, then it is completely hidden from the Workbench user. To combat this, *PopDIR* was devised. *PopDIR* will allow you to display the complete contents of any given directory, therefore unveiling those hidden files before your very eyes.

As well as this very useful task, *PopDIR* also has a secondary, and potentially even more useful role: it's a virus killer. Many of you may have heard of the IRQ virus, a particularly nasty little beast that attaches itself to an executable file and therefore cannot be killed by the usual bootblock checkers. *PopDIR* has an extra option 'IRQ Check' that, when it displays the contents of a directory, will also check every file within that directory for the deadly IRQ virus.

Getting Going

You can load *PopDIR* by double-clicking on the *PopDIR* icon. When *PopDIR* has loaded, it will 'iconise' itself by placing a small icon near the top left-hand corner of the screen. To start *PopDIR* running, just click once on this icon and the program will spring to life. Full instructions on *PopDIR*'s uses are available within the *PopDIR* drawer.



■ **The *Amiga Format* Demo, kindly programmed especially for us by... well, you can see their names... includes a goodly-sized chunk of some extremely enjoyable music as well as the fine graphics.**

AMIGA FORMAT DEMO

PROGRAM: BY 17BIT SOFTWARE
FILES: MUSIC, MUSIC.DOC

After the phenomenal success of the swinging frog demo from Issue One's Coverdisk, we've been searching hard for a worthy follow up to that classic demo. This month's demo was written specifically for us by those talented chaps Allister Brimble and Rico Holmes, who will be instantly familar to any of you who purchase PD disks from 17 Bit Software.

Allister and Rico have produced a vast amount of quality music and graphics which can be found in abundance within 17 Bit's huge range of demos, and Allister's work has featured several times within our very own PD Update section.

Both Allister and Rico are looking for freelance work producing graphics and music for the Amiga. If you're a software house and you'd like to contact either Allister or Rico, check out the documentation on the disk for further details.

Getting Going

You can load our *Amiga Format* demo by clicking on the MUSIC icon on the Workbench. The program is crunched and so don't be alarmed when the screen display starts to shake. This is just the demo decrunching itself, ready to be run.

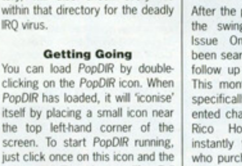
DPAINT CLIPART

PROGRAM: BY ELECTRONIC ARTS
FILES: CLIPART.001, CLIPART.002, CLIPART.EXAMPLE

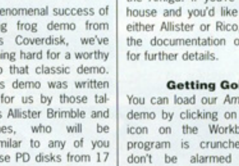
Thanks to those awfully nice people at Electronic Arts, you can try your hands at the techniques described in our *DPaint* tutorial in this month's issue of ▶



■ **The clipart bits and pieces.**



■ **Having loaded the Coverdisk via Workbench, just click once on the *PopDIR* icon at top left to bring the program to life.**



■ **Choose the directory to be viewed from either the presets or by typing the full pathname into the string gadget.**



■ ***PopDIR* is now up and running in full effect. Here, we are also checking for the presence of those elusive IRQ viruses.**









PSYCLAPSE

- ***Ultra smooth 8 way scrolling***
- ***Designed with small fully animated characters from Garvan Corbett, the artist who brought you the classic hit Barbarian***
- ***Multi-directional free format weapon usage***
- ***Large playfield for even more action.***

You're really up against it this time. Those revolting robots have finally upped and turned their horribly powerful weapons on their kind human masters.
Someone's got to stop it before it all gets out of hand. I mean, you just can't have bloodthirsty Cyborg assassins roaming the streets of Dome City and expect the citizens to put up with it. Who on earth is going to sort out the mess? You guessed – you get the job.

Fortunately, you are just a little bit on the special side. You are Stryx, the product of Project Alpha Secure, the meanest fighting, smartest thinking machine ever invented. Half-man, half-robot, you are the business, the only one who can stop those wicked Cyborgs.

You'll have to work hard, though, blasting hordes of the revolting creatures (such a sad waste of scrap metal) and rescuing the keys to the Lifeforce.

So, Stryx, you'd better get your jet pack on for some high level robot stomping through the immensely complex underground world of the Dome cities. It's a tough assignment, and time is running out.

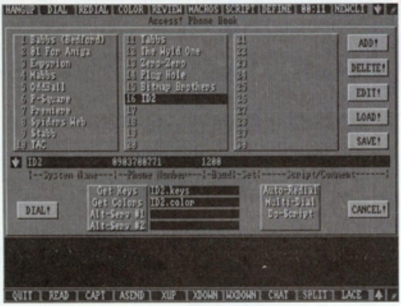
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PSYGNOSIS

GAMES PEOPLE PLAY



■ The *Access!* serial port set-up page.



■ Keep a list of all your favourite bulletin boards with *Access!*

▸ *Amiga Format.* Thanks to EA, we've been allowed to give you a selection of the clip art from EA's excellent *Deluxe Paint 3* package, which you can use in just about any paint package that supports the IFF file format (which is just about every Amiga paint package under the sun! More details of this below.)

Getting Going

To be able to take advantage of these clip art files, you'll need to have access to an IFF compatible paint package. If you don't have a suitable package, but would still like to play with the clip art, check out the PD libraries, which include several high-quality paint packages that will more than fit the bill. For further info on the use of the clip art, check out the *DPaint* tutorial on Page 25 onwards.



ACCESS!

PROGRAM: PUBLIC DOMAIN
FILES: ACCESS!, ACCESS!.DOC

Calling all you Comms kids. Thought we'd forgotten you, didn't you? Not us matey, we've got an extra special treat for all you comms enthusiasts in the form of *Access!*, probably the best PD comms package in existence.

Access! is a powerful communications package that includes everything you'd expect from a full-price commercial comms package. The program features all the standard communications features such as fully configurable baud rates, multiple file transfer protocols, multiple phonebooks... and the list continues.

I must admit that the one thing that attracted me to *Access!* was not the wealth of features, but its presentation. Presentation is one area of software design that tends to be sadly neglected these days, and so it's always nice to find a package that is not only powerful, but also looks nice.

Even if you don't have a modem, *Access!* can still be a valuable addition to your collection

USING THE DISK

Backing Up Your Disk

For a number of reasons, it is rather important to make a backup copy of the Coverdisk as soon as possible. Copying the disk may sound like a complicated task suitable for technobuffs only, but it is surprisingly simple provided you read the following instructions carefully:

1. First, turn on your machine and load Workbench. Once the Workbench screen appears and the disk-drive light goes out, remove your Workbench disk and insert our cover disk.

2. Next, click once on the Coverdisk icon and then press the right mouse-button and the Workbench menus will appear. Now, while keeping the right mouse-button depressed (you can cheer it up afterwards!), move the mouse pointer over to the 'Workbench' heading and a menu will drop down. Move the mouse pointer over the 'duplicate' menu option and then press the left mouse-button.

3. After a few seconds' disk access, the Workbench DiskCopy tool will be loaded and run. Now just follow the on-screen prompts and your *Amiga Format* Coverdisk will be copied to a backup disk. When the machine asks for the destination, insert your blank disk into the drive. Further instructions can be found in the user's guide that comes with your Amiga.

Before using your *Amiga Format* disk, you should make a back-up of the master disk as soon as possible. This is very important!

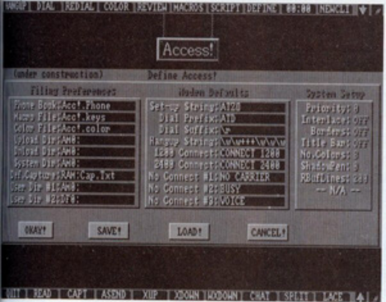
Using the Programs

All the programs on the *Amiga Format* disk are specially set up to make them as easy to use as possible. If you can use the Amiga's Workbench then you can use our Coverdisk! If you do have problems with a program, full instructions on loading and using the programs are included in the Disk Pages and these should get you up and running. If you still have problems, you should read the documentation file (.DOC) that is included with every program. To run any of the programs on this month's Coverdisk, all you have to do is follow a very simple procedure. Unless specified differently within the Disk Pages, just double-click on the program's icon on the Workbench and the program will load and run. Full details on how to use the programs once they have run are included with the Disk Pages and also as a documentation (text) file accompanying the program.

To display a documentation file, just double-click on the appropriate .DOC file to be viewed and a window will open containing the file's contents. Pressing the space bar will advance a page at a time.

Is Your Disk Faulty?

We have done our best to check that the programs on the *Amiga Format* Coverdisk are simple to use, error-free and have no known viruses. However, we cannot normally answer telephone queries on using the software, and we do not accept liabil-



■ *Access!* in action on the ID2 bulletin board.

of utilities. For example, what do you do if you have another computer, other than an Amiga, that you wish to port files across from for use on your Amiga? You use *Access!* of course! What you'll need is just a simple lead to connect between the serial ports of both machines, and you're away.

Getting Going

You can load *Access!* by double clicking on the *Access!* icon from Workbench. During loading, *Access!* may appear to have crashed back to Workbench – don't worry, the program is working and if you leave *Access!* alone, it will eventually load and run successfully. The program will sit, apparently doing nothing, for a minute or so before loading the rest of the program. As always, patience is the key.

If you have a 512K Amiga, you may have to turn off your machine and reboot Workbench from scratch so that *Access!* has as much memory available as is possible. When using *Access!* always make sure that it is the first program you load once your machine has been switched back on and Workbench has been loaded, and it should load without problems. For further information, consult the program's documentation file, Access!.DOC. ■

WORKBENCH HACKS

PROGRAM: PUBLIC DOMAIN
FILES: VIACOM, DK

Our regular collection of Workbench hacks certainly is proving to be popular: we received a vast number of letters from you saying how much you enjoy these seemingly useless programs. This month's collection continues the age-old tradition of being totally useless but a lot of fun.

Getting Going

You can load either of this month's Workbench hacks by double-clicking on either the *Viacom* or *DK* icons on the Workbench. A particular hack's purpose may not be immediately obvious, so you may have to just sit back and wait for something to happen. Don't worry, eventually weird things will start to affect the screen...



■ Aaagh! What's happening to my Workbench screen?

ity for any consequences of using the programs on the disk.

If your *Amiga Format* disk is faulty – and out of the tens of thousands duplicated, some are unfortunately bound to be – you should send it back for a free replacement within a month of the cover date to: Amiga Format October Disk, Discopy Labs, Unit A, West March, London Road, Daventry, Northants, NN11 4SA.

If your Amiga refuses to accept the disk, try using the DISKDOCTOR utility on your Commodore Workbench disk to rescue it before sending it off for a replacement. Full details of DiskDoctor can be found in the user's manual that came with your machine.

Copying the Disk

Unless specifically stated, the programs on the Coverdisk are not in the public domain and the copyright remains with the author. Selling or distributing these programs without the author's permission is against the laws of copyright.

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....

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My program name is ....

....

Approximate total size of files in kilobytes ....K (we cannot use programs longer than 200K; shorter submissions, under 100K, stand the best chance of publication). It is a:

☐ Game
☐ Technical tool
☐ Business utility
☐ Art program
☐ Music program
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BRIEF DESCRIPTION ....

....

....

....

CHECKLIST (please tick):

☐ Stamped, addressed envelope for return
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☐ Printout of README.DOC file (if possible)
☐ Name, address, machine type written on label
☐ Disk certified virus free

IMPORTANT Please sign this declaration: This program is submitted for publication by *Amiga Format*. It is wholly my own work and I agree to indemnify Future Publishing against any possible legal action should copyright problems arise.

Signed ....

If you've got any programs for the Amiga which you think other readers would find useful, interesting or amusing, we'd like to know about them. 1. Make sure your program is foolproof to use. 2. Create a file called README.DOC on the disk which explains exactly how to use your program. 3. Fill in this form, sign it, and send it without delay to:

CoverDisk Software, Amiga Format, 4 Queen Street, BATH BA1 1EJ

You could win a share of £800 prize money for the best programs each month.

PUTTING COLOUR ON THE PAGE

Continuing his travels in the world of Amiga DTP, GRAEME KIDD looks at two packages that offer full colour separation facilities. Real Power User stuff, but first a quick lesson on colour printing methods...

PRINTING RAINBOWS

Colour separation and printing can transform pages beyond recognition - here's how...

Getting full colour images to print on paper is partly an art, mostly a science, and couldn't be done without just a little bit of magic. And until recently, it was also a very expensive process – using traditional methods, it can cost several hundred pounds to prepare a single colour page for the printing press.

The basic theory behind the techniques used to print colour magazines such as Amiga Format is straightforward enough, and applies to most full colour printjobs. By mixing three coloured printing inks in different combinations it is theoretically possible to make any colour you want and put it on a page. Cyan, Magenta and Yellow are the inks you need, and in the trade they are referred to as 'Process' colours. (Similarly, using Red, Green and Blue light it is possible to create and display any colour in the world – that's how a colour monitor or TV screen works.)

There's one little refinement to the basic concept of mixing Process inks. Even though the theory about combining Cyan, Magenta and Yellow to produce any colour you like holds true, the black achieved by mixing the three colours isn't very convincing when it is printed. Quite early on, printers discovered that a much better finished result could be achieved if they deviated just a little bit from the pure theory of colour: most full colour printing involves using a fourth Process ink – Black.

Printers make room for some Black ink by removing just a little bit of Cyan, doing away with just a touch of Magenta and getting rid of the tiniest amount of Yellow. They also use their Black ink to print black areas of an image and to generally crispen up the appearance of the printed picture. While there are complicated algorithms in use for generating the black component of an image, doing it right involves the use of little magic...

When it comes to printing a colour page, four different printing plates are needed, and the paper has to come into contact with each of them in turn so that the Cyan, Magenta, Yellow and Black inks can be applied. It's a tricky job getting the four Process colour images to align perfectly with one another, but that's the printer's job. As a publisher, it's your job to provide the printer with four pieces of film for each page so the printing plates for Cyan, Magenta, Yellow and Black can be made.

Getting the mix right

Now would be a reasonable time to go and fetch a magnifying glass – it'll make things much clearer in a moment. (Don't worry, we won't be needing the washing up liquid bottle and sticky-back plastic today.)

Think about all the colours there are in a photograph, and about how the zillions of shades in a complicated scene blend smoothly into one another. Obviously, a printer can't mix every individual colour there is in a picture and print a solid representation of the image on paper. It'd take years, or even decades to print a single issue of Amiga Format that way, even if it were possible.

It's time for the printer to perpetrate a con job.

If you look closely at any colour picture printed in this magazine, you'll see that it is made up of lots of little dots. With the aid of your magnifying glass, you'll see that the four Process colours are not in fact mixed together at all on the page, but are printed as dots of differing sizes arranged in a regular rosette pattern. This is where the con lies. Your eye views this arrangement of coloured dots, and at normal magnification is fooled into mixing the colours for the printer. You do all the hard work needed to achieve those subtle shades!

Take a close look at one of the subtle colour tints our artists have put on a page, or examine some text that has been printed in one of our Art Editor's favourite colours, and you'll see how two, three or four Process colours can be combined. Magazine Art Editors can create any colour they like for text and tints by specifying percentage mixes of the four Process colours – don't forget, 0 is a percentage too.

Creating the Illusion

The expensive element of traditional full colour printing is colour reproduction, the bit that can cost several hundreds of pounds per page.

In the days before DTP, you had no option but to prepare black artwork with an overlay on which you specified the colour mixes for ▶

■ Yellow, magenta, cyan and black – the four colours which when overprinted, produce a full colour picture.



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PROTEXT is very fast! Unlike the majority of Amiga word processors PROTEXT scrolls very quickly and redraws the screen in next to no time. We have achieved this by developing our own screen handling routines - much faster than the standard ones.

PROTEXT uses the Amiga 'WIMP' interface fully and supports pull down menus, use of the mouse for cursor movement and block copying and window resizing. PROTEXT makes full use of Amiga Preferences settings and is fully compatible with the Amiga's multi-tasking operating system.

Protext is the result of 4 years of development. Unlike the majority of competitive programs Protext is 100% British and is being developed further all the time in response to the needs of British users. Registered users are always informed when upgrades are available.

> "Protext really is the best text processor on the Amiga"
> *ST/AMIGA FORMAT 2/89*
>
> "Protext - the real joy comes only from using it. I can say without any fear of contradiction it is the best word processor available at the price, in my view, at any price in fact."
> *AUI 3/89*

A brief summary of some of Protext's features ...

Background printing	edit/create further files while printer is busy
Box manipulation	move, copy, or delete any box as well as blocks
Configuration	set over 50 options to your own preferences using our menu driven configuration program
Dictionaries	add/delete words to/from supplied 70000 word English dictionary. Create your own dictionaries.
Disc utilities	copy files, erase, rename, type, create directory, change directory, remove directory, catalogue files
Exec files	store sequences of commands in files for easy use
File conversion	flexible file conversion utility for other WP files
Find & replace	very powerful and fast with many options.
Foreign languages	10 built in keyboard languages. Easy to use accented letters: ä æ ç ö ü è é ß à ù ô ê ñ etc.
Formatting	auto-reformat; reformat para, block or whole text.
Headers & footers	up to 9 lines of text, different even/odd headers and footers, auto page numbering, footnotes.
Help	edit and command help available on-screen
Keyboard macros	string any sequence of letters together on a single key e.g. "Yours sincerely". Load and save macro key files. Special recording mode as you type.
Line drawing	ideal for drawing lines (incl. corners) around text
Line spacing	variable in half lines, including 0, ½, 1, 1½, 2, 2½, 3
Printer support	works with any parallel or serial printer. Wide range of printer drivers supplied, incl. lasers and 24-pin printers; or create your own drivers or edit ours.
Printing styles	bold, condensed, double strike, elite, italics, enlarged, pica, NLQ, subscript, superscript, microspacing, proportional spacing, any other printer fonts
Program mode	suppresses formatting; auto-indent; set tab stops
Proportional text	will print proportionally spaced, right justified text
Quick dictionary	dictionary held in memory is very fast
Ruler lines	any number of ruler lines to define document layout, left/right margins and normal/decimal tab stops
Spelling checker	check whole text from disc or memory, or as you type. Suggests alternative spellings. Works with foreign languages
Symbols	full character set available on screen. Character symbols may be redefined
Time and date	time shown on screen. Insert time or date into document
Tutorial files	help you to start using Protext
Two file editing	two documents in memory, copy text between them
Typewriter mode	direct printing for envelopes etc.
Undelete	retrieve text deleted in error
Word count	quick count at any time, whole text or just a block
Word puzzles	anagram and crossword solving features
Wysiwyg	on-screen bold, underline, italics

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▸ tint boxes and coloured text. You'd leave white spaces on the artwork where you wanted colour pictures to appear on the printed page, then send the artwork and overlay off to a repro house with the pictures. The repro house would duly return a set of four films from which the plates to print the page were made. They'd also send you a bill.

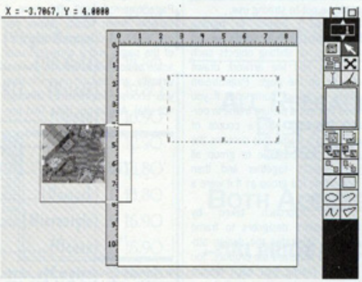
This traditional method is still the only way to achieve perfect results with pictures unless you want to spend hundreds of thousands of pounds on repro equipment. In order to capture the image in a photograph, separate it into the four Process colours and output it to film ready to be incorporated into the films for your page, a repro house will use a scanner. They will have paid a quarter of a million pounds or more for their scanner, which explains two things: first, why repro houses have to charge you serious money, and secondly why an Amiga, Macintosh or PC based DTP system can't match the perfect results of the repro man.

With colour DTP it's possible to save money by doing some of the repro house's work – producing sets of film that have the tints and colour text, then leaving the colour separation of pictures to the man with the #1/4 scanner. If acceptable rather than perfect results are your goal, or if DTP with colour separations provided via a video camera or desktop scanner means you can afford to use colour, then full colour DTP is for you.

Whatever your motivation, the Amiga offers the cheapest route into full-colour DTP work, and even though an Amiga can match the power of of vastly more expensive PC and Macintosh systems, it has largely been ignored by UK printers and publishers. Next month, we'll be taking a look at people out there in the real world using Amigas for commercial DTP work, meanwhile check out Professional Page and Page Stream...

PROFESSIONAL PAGE

Gold Disk's slogan, which appears on the cover of Professional Page manuals, is 'Advancing the art of desktop publishing.' It is certainly justified so far as the Amiga is concerned: Gold Disk has been at the leading edge of Amiga DTP for some while now, and has advanced Professional Page itself through version 1.1 to the current v 1.2. The software has a pedigree: it has been in use for a couple of years, and the refinements in the latest version take account of requests and suggestions from users.



■ Emulating the traditional approach taken by pasteup artists – here a picture is being dragged from the drawing board onto the page.

In many respects, Professional Page mirrors the method of working adopted by PageMaker, the classic DTP program that got the ball rolling on the PC and Macintosh. The basic concept models the traditional working methods of the paste-up artist. Documents are assembled as if they were physically placed on a designer's table, so the frames that are used to hold text or images can be picked up, moved off the page and 'parked' on the tabletop until they are needed.

Everything you might need to control layout and typography is offered via the pull-down menus and toolbox icons, with no omissions. While hyphenation is controllable via dictionaries in English, French and Spanish, with Professional Page you are expected to check your spelling at the subediting stage rather than in the document.

The work area can be viewed in five magnifications, including actual size and 200%, and a cunning page preview gadget in the toolbox shows a schematic of the entire page when it is too large to fit on the Amiga screen. Move a cursor over this tiny representation and you can jump to any area of the page without having to scroll around hunting blindly. A neat touch, which is complemented by a hand-move tool that allows the work area to be shifted around on screen. By default, the display is in interlace mode (recommendations are made in the manual as to less flickery monitors), but it can be toggled to the more stable Amiga resolution...

Frames, or boxes as the manual prefers to call them, can be linked together in chains so that a story can flow through several locations on a page or in a document. To make life easier when your nose is firmly against the layout board, two tools allow you to move automatically from the current location to either the previous text box in the chain or the next one. Following the flow of a story is therefore a doddle.

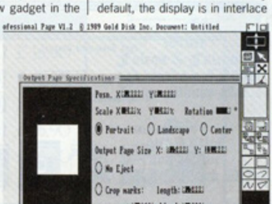
A set of six basic drawing tools are kept handy by the side of your paste-up desk, and a basic selection of line and fill types are offered, which can easily be set to virtually any colour. For the benefit of those with more sophisticated illustrative needs, version 1.2 now supports Gold Disk's Professional Draw package, and also handles high resolution bitmap graphics, so there's plenty of scope for getting sophisticated images onto your pages.

In essence, Professional Page is a powerful and quietly competent DTP package with a friendly interface. It is typographically excellent, and justifies the 'Professional' tag. What makes Professional Page a stunning DTP product – and not just a stunning Amiga product, but one that stands up very well to top of the range PC and Macintosh packages – is the degree of control it offers over the creation of colour separations.

Originally, Professional Page only supported PostScript devices: it was intended to be a serious publishing tool from the beginning. The program learnt to deal with dot matrix printers with V1.1, but has always existed to ▸



■ The interlace display mode allows your work to appear on screen in high resolution. Monitor flicker may make this mode uncomfortable to work in.



■ Part of the PostScript control process offered by Professional Page – screen angles and resolutions for the four Process colours can also be controlled when full colour work is being output

▸ cope with the sophisticated output needed to produce professional colour work.

The Print to PostScript submenu offers all the options you need to consider when preparing output for a laserprinter, remote typesetting bureau or for subsequent import by another PostScript-compatible program. When preparing full colour separations you can specify the resolution of the screen used to create the dots, and can also control the angle at which the screens are output to film. Mono, three colour and four colour separations can be made and you even have control over undercolour removal and grey component replacement (which has to do with the 'magic' process whereby real Black is introduced as a fourth colour into an image which could theoretically be printed using only Cyan, Magenta and Yellow). Colour PostScript is also supported.

Gold Disk have designed and written Professional Page to be an integral part of integrated, Amiga-based publishing operations. As such, it fits into a range of publishing products produced by Gold Disk themselves and other Amiga suppliers. PageStream, when it appears, is unlikely to knock Professional Page off its perch. Put simply, Professional Page is currently THE package if you want to use an Amiga to produce high-resolution pages and colour separations. ■

PROFESSIONAL PAGE
£29.95 incVAT ■ 1 Meg Amiga, two drives strongly recommended ■ HB Marketing 0895 444433

PAGESTREAM

Silica Systems, the people behind the UK version of PageStream, believe it will be the ultimate Amiga (and ST) DTP system. They may or may not be right, even though it will take a remarkable product to push Professional Page and its track record off the top slot it currently enjoys.

Amiga PageStream is in the last throes of programming, and the original American manual is currently being rewritten by native English speakers. This all means that your humble reviewer has not yet received a finished copy of PageStream and indeed, has not had the pleasure of reading an accompanying manual. The advanced preview copy supplied to us by Silica is certainly impressive, and if everything works as it should do in the released version, then Silica certainly have a challenger...

Romping around inside the preview software in the absence of documentation revealed the user-friendly nature of PageStream: anyone with a reasonable experience of DTP software should be able to get up and running without reference to the lovingly Anglicised manual. As might be expected, the system is designed to work on the basis of an old DTP favourite, frames, which accept text or graphics once they have been drawn on the page.

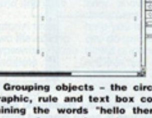
Roundabout

One of the more cunning aspects of PageStream lies in its frame handling facilities. Sure, you can shuffle a frame full of text around a page or even move it from page to page, but you can also rotate it. Cunning? Certainly, and what's more, you can rotate a frame in three planes: rotating it and about its centre on the page, or, via the 'slant' and 'twist' options, on each of the two planes at right angles to the page. With a bit of creative effort, the distortions to the contents of a frame produced by the rotation function could be put to striking use.

When it comes to moving frames and their contents around the page, or shifting objects such as rules and line artwork drawn directly on the page, PageStream offers a 'group' command. If you have just got a picture frame in perfect alignment with a couple of rules and a frame that contains the caption, it's possible to group all four objects together and then manipulate the group as if it were a single object.

The approach taken by PageStream's designers to frame handling illustrates the design attitude that underlies the product. You get the feeling that each feature that you would expect to find in a worthwhile DTP package was examined in detail and then embellished or enhanced before it was incorporated into the PageStream concept.

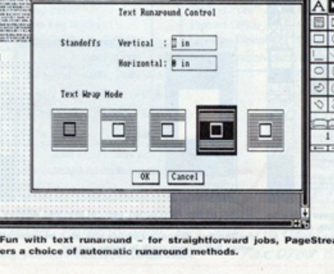
The page view facilities, for instance, offer all you could possibly want. From the pull-down View menu, you can choose to view a document at actual size, 50% reduction, 200% magnification, or with either the full width of the document or the full page on screen. Fair enough, you might think, but PageStream doesn't stop there. A variable zoom facility allows you get really close to a selected area of the page, and a show/set user scale option allows you to work at virtually any default magnification you choose. Impressive, although not vital. And in our Beta Test pre-



■ Grouping objects – the circle graphic, rule and text box containing the words "hello there" can now be moved as a team.

view copy, too much fiddling with the view menu tended to make the system hang... but this is a Preview.

The dictionaries for hyphenation and checking spelling can be edited, and a reasonable level of control over the hyphenation procedure is offered. Neat little touches abound. While you can achieve text-wrap around seriously complicated objects by fiddling around with a polygon tool, five automatic approaches to wrapping text around a regular shaped object are offered on a Runaround submenu. Objects can be moved and automatically aligned with one another on the page via a submenu. And the range of text styles offered is impressive: mirror, upside down, single underline and double underline are amongst the options. It'll be interesting to really get to grips with all these facilities when the final version is complete...



■ Fun with text runaround – for straightforward jobs, PageStream offers a choice of automatic runaround methods.

Design Benefits

Obviously, PageStream's designers have had the benefit of their own and other people's hindsight, and they have specified a product which looks and feels friendly. When the programming and manual re-writing effort is complete, PageStream will indeed be a powerful and useful package, providing everything currently offered in the Beta version can be made to work in the final release.

Silica promise that import/export modules/drivers will be continually written to allow new output devices to be driven by the software and to provide inward compatibility with Amiga users' favourite text and image generating software. A more detailed PostScript/colour separation output module would be the first on my request list – in the absence of the manual, it would appear from the Beta version of PageStream that the level of control you have over the generation of colour separations is minimal. If producing four-colour separations is important to you, then Professional Page looks to have the edge at the moment (not least because it is immediately available). Clearly, when PageStream is released it is going to give Professional Page a good run for its money – we'll keep you posted... ■

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(Beta version)
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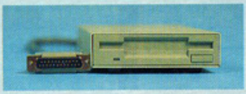
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PD UPDATE

The complete guide to PD starts here!

Ever pay through the nose for the latest games and serious software only to find that you've wasted your hard-earned cash? You need PD matey! JASON HOLBORN takes another trip in the world of free software.

COMMS UTILITIES

17Bit Disk 444

This month's Coverdisk has an extra special treat for all you comms kids out there, in the form of the excellent PD communications program, *Access!* Our Coverdisk comms program was taken from Seventeen Bit's excellent comms utilities disk (thanks 17Bit!) which as well as *Access!*, also includes the even more powerful *JRComm* and *Compunet* software.

JRComm is a complete VT100 terminal emulator that provides almost 100% emulation of the IBM ANSI terminal standard. The program supports just about every communications protocol under the sun including XMODEM, YMODEM, ZMODEM, Kermit and ASCII. For those of you with super-dooper high-res monitors, *JRComm* will allow you to run in high resolution overscan with a 132-column screen.

The other major comms package on the disk is the *Compunet* software written by those clever chaps at Ariadne Software in London. The software was written specifically for use with the Compunet system and is a very posh multi-colour, multi-window affair. The software is shareware and you are therefore charged £20 for it as soon as you decide to join Cnet. Of course, if you don't join Cnet, then you don't have to pay.



■ **Comms freaks can get a peek at the wonders of IBM ANSI.**

ICONS

Fish 213

Last month's Coverdisk icon editor, *Icon Meister*, certainly turned out to be rather popular with all you Workbench hackers. From the various letters and phone calls we received, the ability to create eight-colour icons seemed to be the most favoured part of the program but there was only one problem: unless you had a program such as Hi-Tension's *IconPaint*, you couldn't display your eight-colour icons in all their glory.

Well, the search was long and hard (fnarr fnarr!) but we eventually came up tops with a PD program to do the job very nicely. The program itself is called *Bitplanes* and is included with many demonstration icons which collectively live on Fish Disk 213 under the name 'Icons'. The *Bitplanes* program must be copied onto your boot disk and inserted into your StartUp-Sequence just before the line 'LoadWB'. All you have to do is to tell it how many bitplanes you wish to allocate to the Workbench screen and it will do the rest (you'll need three for an eight-colour Workbench).



■ **Now doesn't that look a lot better than the usual four-colour Workbench!**

SOZOBON C

Fish 193

C compilers are terrible expensive things. Version 5 of Lattice's offering could set you back as much as £250 for the basic system. With these high prices the hard-up C programmers are in for a hard time. ▶

Luckily, there are programming language authors out there that are willing to allow their wares to be sold for the price of a disk. Sozobon C is a complete C development system, with a Unix-like front end, that is available on several machines including the ST and PC. The Amiga version produces source code that is compatible with the PD assembler, A68K (available on Fish Disk 186).

If you are just starting out in C programming and you haven't yet decided whether or not the C programming language is for you, then a PD C compiler is you're best bet. With Sozobon C, if you decide that C isn't your cup of tea, then you've only lost £3: if you buy Lattice C and then tire of it, then you've lost £200 upwards.

MACKIE
Fish 161

Hotkey macro programs are to be found in abundance within the public domain, but none are as versatile as *Mackie*. *Mackie* is a neat little utility that adds a system hotkey to your Amiga which can be defined to carry out any number of functions when used in conjunction with other keys.

To set *Mackie* up, you have to create a '.mackierc' file that sits in the 'S' directory of your boot disk. This file contains all the definitions for the various hotkeys that come into action when they are used in conjunction with the 'Help' key.

Defining your hotkeys is very simple. For example, if you wanted a new CLI window to appear when you pressed the space bar with the Help key depressed, you would enter: space CLI "" "NewCLI". If a CLI window is already open, this will be 'popped to front': otherwise *Mackie* will create a new one. This is particularly useful for those of you who are programmers, who will no doubt have experienced the frustration of losing files in the RAM disk when your program manages to lock up the machine.

CHESS
Fish 205

The PD libraries aren't just full of programmers' toolkits, linkable file requesters and text formatters: look hard and you'll find a host of quality games software just screaming out to be played. Even popular commercial releases such as *Tetris* and *Boulderdash* (sorry, *Rockford*) have spawned PD impersonators.

Serious gamesters can get stuck into an absorbing game of that classic board game of ye olde English *Chess*. What can I say about Chess that you don't already know: suffice to say that the game beat me hands down every time (which really isn't that hard, I suppose!).



■ **Why am I so totally useless at chess?**

Another use is that if you have a collection of programs which you use quite regularly from Workbench, you could set *Mackie* up so that with just a single key combination, any program would be instantly loaded and run. Now that's useful!

As well as being a good hotkey macro utility, *Mackie* also includes a definable screen blank with a difference. Instead of the usual black screen, after a user-definable amount of time *Mackie* will blank the screen and then start a fun little line-drawing demo similar to the 'Lines' demo on your Workbench disk.

SETPREFS
Fish 157

Finding PD programs for inclusion within PD Update is a difficult business. Every time a program crops up, we have to ask ourselves 'Would our readers really find this useful?' Well, judging by the amount of letters we've received asking for such a program, we're sure that you'll find that *SetPrefs* is just what you've been looking for.

SetPrefs is a useful little



■ **A library of sample Preference settings is included in *SetPrefs*.**

Workbench utility that allows you to build up a library of Preferences settings which you can switch between instantly without having to reboot your machine. The program affects all Preferences settings, not just the Workbench screen colours, so you can instantly change system attributes such as the printer configuration by just double-clicking on an icon.

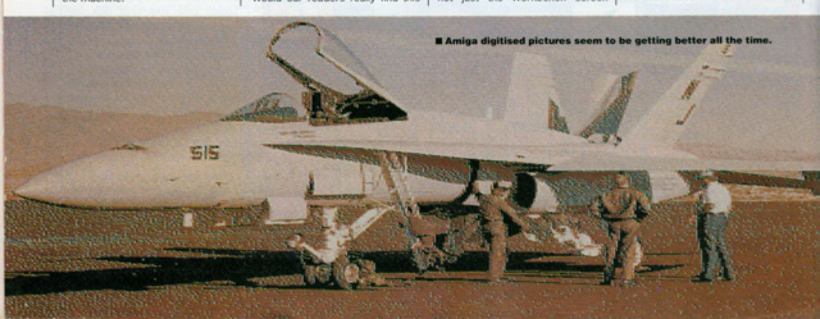
FIXHUNK
Fish 197

There certainly are some sloppily-written programs floating about. Anyone who owns an Amiga with a memory expansion will know how annoying it is to use a program that hasn't been written to work within an expanded memory environment. The symptoms are easy to spot: a blank or corrupted screen display, white noise where a sound sample should be playing or even just a Guru.

Amiga object files are made up of distinct 'hunks' which contain specific types of data. Hunk types include DATA, BSS, CODE and DEBUG. When using a program that accesses the custom chips, all DATA hunks to be used by the custom chips must be forced into the first 512K of memory (chip memory) if the program is to function correctly. Many Amiga programmers will be familiar with the popular *Atom* utility that was included in the Amiga developer packs, but unfortunately this isn't PD and so *FixHunk* was written. *FixHunk* modifies an Amiga object file so that all DATA and BSS hunks are loaded into Chip memory and CODE hunks are loaded into fast memory (if it is available).

PD TEN DEMOS
GTS Title

1 **Mega Games Pack 2, Disk 6 Air Warrior**
2 **Star Trek**
3 **Fish 196**
4 **TBAG 31**
5 **TBAG 16**
6 **3D Extravaganza**
7 **Fish 175**
8 **TBAG 28**
9 **TBYB Dungeon Master Demo**
10 **TBAG 29**



■ **Amiga digitised pictures seem to be getting better all the time.**

DEMOS CORNER

The demos scene has been rather uneventful this month, probably as a result of the summer sun causing programmers to desert their machines in search of the ultimate tan. However, we still managed to pick a couple of beauties among the endless list of scrolly, soundtracked demos.

MAHONEY & KAKTUS MUSIC DISK 2

Disk 426

Music disks containing compilations of music are very popular with demo collectors: one look at our exclusive Demos Chart will confirm that! The Mahoney and Kaktus music disk is a sizeable collection of music composed by those affluent continental composers of the same name.

Both Mahoney and Kaktus are fans of such greats as Jean Michel Jarre, Depeche Mode (brilliant!) and Jan Hammer which is more than evident in many of their compositions. Once you've grown bored of listening to the music, you can sit back and admire the impressive visuals that accompany every song: every trick in the programmer's book is employed to provide some astounding effects.

INTROS

Disk 422

Like them or hate them, those scrolly demos that exist in such abundance on the Amiga are still very much alive and kicking. If you've never seen an intro program, they usually consist of some scrolly text with flashy graphics wizzing about the screen to the beat of another 'soundtracked' music score.

It's easy to be impressed by the first couple of intro programs, but once you start getting into double figures, the same old scrolling effects can soon grow tiresome. It is therefore always nice to find a disk of intros that offers something new, be it a nice new effect that has never been used before or a completely original music score that doesn't use a single Sound Tracker preset. Intros, Disk 422, features several such demos that, in one way or another, offers demo watchers something new. The best of all the intros on the disk is a demo by Depeche which has a very novel scrolling text mechanism, adding a new meaning to the expression 'rolling credits'. Check it out and you'll see what I mean!



■ This marvellous Porsche is, like the ones below, from Fish 196.

HAM PICS

Fish 196

What's this? A demo that doesn't originate from 17Bit Software? Yes, it's true, the Fish disks aren't just good for serious programs: they also contain some very good demos.

We've all seen those infamous HAM (hold and modify) picture disks, but these HAM pictures are beyond belief. If you've ever wanted to find the definitive collection of digitised pictures to impress your Grannie Gertie when she pops round, then look no further than Fish Disk 196: they really are of photographic quality.

The original pictures were scanned at a resolution of 4096 by 2800, 36 bits per pixel on an incredibly expensive Eikonix 1435 slide scanner and then cropped, gamma corrected (?), scaled and then converted to IFF compatible files. Digi-View eat your heart out!

INTROS TOP TEN

17Bit Disk Nos throughout

1 **Supreme Sounds 1**
2 **Mahoney and Kaktus Music Disk 2**
3 **Quadlite 64 Demo**
4 **Intros 19**
5 **Titan Trax**
6 **Intros 20**
7 **Intros 18**
8 **Sonix 18**
9 **Supreme Sounds 2**
10 **17Bit Art Vol. 1**



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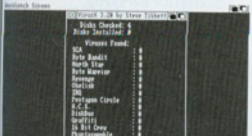
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- **Mega Pack 11**: Sonix Music Pack. Includes the PD player for Aegis Sonix music program and 4 disks full of music scores.
- **Mega Pack 12:** Miami Vice sampled sound demo of the Miami Vice theme. Excellent graphics and sound.
- **Mega Pack 13**: Demo Pack 3, Einstein, Bruce & Bongos, Anti Trax 2010, Dig Tech and Share & Enjoy demo disks.
- **Mega Pack 14**: Demo Pack 4, Sanx, Sanxim, Mark II, Action! and TECHtech demo disks.
- **Mega Pack 15**: Demo Pack 5, Needs two disk drives. New Tek, Pophits - sampled sounds of Pet Shop Boys, Madonna and other pop groups, disk of sampled sounds including Star Wars, Mr Spock etc. and Beatles music over great graphics - Killer Demo.
- **Mega Pack 16:** ABasic Pack, Games, Utilities, demos etc. includes ABasic. Note: ABAsic is not Amiga Basic.
- **Mega Pack 17**: Utility Pack 1, Printer Driver Generator, Fonts and Font Editor, Floppy disk utilities, disk copiers, clocks, calendar, directory lister, Virus Checker and other utility programs.
- **Mega Pack 18**: PD Experience!, a mixed bag of public domain utilities, graphics,demos etc. all disks from the Tampa Bay Amiga Group all auto loading any very easy to use! Simply place disk in your Amiga and turn on! Excellent.
- **Mega Pack 19**: Utility Pack 2, Icon utilities, Mouse pointers, printer drivers and fonts, Screen IMage to PrintER, PopCLI and loads of brilliant utilities.
- **Mega Pack 20**: Picture Pack 3. Needs two disk drives, 5 disks of brilliant HAM and low resolution pictures. All auto loading.

APPLICATION DISKS

- **FFISH 144** - Analyticalc V22.3D is a large & powerful spreadsheet program. It requires 600K of RAM and one floppy.
- **FFISH 143** - RIM V5.0 is a Relational Information Manager, a fully relational DBMS that is suitable for very large databases using B-Tree data storage. Versions of RIM run on a variety of micro systems both small and large, and produce compatible databases, Includes a builtin HELP database and a programming language.

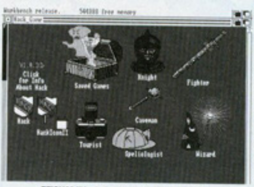
UTILITY DISKS



VIRUSX2.3 "Virus X V2.3 the Virus Checker destroyer

- **Virus X V3.2**. The virus killer that sits in memory and checks disks as they are entered.
- **AMICUS 22** - Printer Driver Generator V2.3, Show Print II.3 IFF screen dump.
- **FFISH 158** - DiskX is a sector based disk editor, MemBoardTest V2.4, MSDOS V0.1 lists files written in standard MSDOS or ST format, then copies them to RAM then rewrites to disk in AmigaDOS format. PCBTool V2.6 is an early version of PC Board layout program that does not support printers. ScreenX is a small clock/memory counter. TaskX V2.0 is a 'realtime' task editor.
- **FFISH 157** - XIcon V2.01 allows you to call up scripts containing CLI commands from an icon. 60or80 toggles 60/80 column text. AmicForm V1.3 creates a phonebook in a form useable by AmicTerm BootBack is a disk boot block save/rewrite and copy program. ECPM is a CP/M emulator. KeyFiler is a BBS message file sorter. ScreenZap. cleans away screens left by ill behaved programs, SetPrefs allows you to build up a library of Preference settings.

- **FFISH 153** - Dme V1.30 of the WYSIWYG text editor designed for programmers. HP11 is a very good emulatation of the HP11 calculator, HPMan V1.0 is used to manipulate the fonts & settings of your HPLaserjet printer or compatible.
- **FFISH 146** - Blanker2 is a screen blanking program that turns the screen black after 90 seconds of inactivity. DmeMacros is a a set of macros that utilises templates to turn DME, the text editor, into a language sensitive editor for C, Pascal, Modula-2 & Fortran, MemoPad V1.1 is an intuition based memo reminder program.
- **FFISH 145** - Dmouse V1.06 is a versatile program that includes screen/mouse blanker, auto window activator, mouse accelerator, popcli, pop window to front, push to back etc.
- **FFISH 131** - DFC is a disk copier that multi-tasks. Hyperbase V1.6 is a database management system, Mackie is a PopCLI replacement. Micro Emacs VMg1b the text editor.
- **FFISH 130** - DirMaster V1.1 is a disk cataloguer, Hp V1.0 a nice RPN calculator which supports calculations with binary, decimal, hex float & complex numbers, Mach V1.6a the mouse accelerator.
- **FFISH 129** - DosKwik a pair of progs which allow you to save files or groups of files to one or more disks for quick loading. MRBackup V2.0 and V2.1 a hard disk back up utility. Paintjet a Hewlett Packard Paintjet printer driver. Patch V1.3 and V2.0 applies context diffs to text files to auto update them.
- **FFISH 87** - AdvSys V1.2 an adventure writing system. AutoIconOpen V1.2 fools WB to open disk icons. Claz V2.0 converts IFF files to Postscript including HAM pictures. Commodities V0.4 exchange is an Amiga exec library which can be opened & used by application programs to gain access to input in a very flexible way. Dropshadow V2.0 puts shadows on WB windows, MovePointer moves pointer to given location. MoveWindow moves window to given position.
- **FFISH 69** - Spool V1.2 : a queue manage, printer driver and SPOOL requester and Wc a file word counter. Asm68K V1.0.3 fully featured macro Assembler. Blitlab a blitter exploring program in C Conman V0.9 a sort of CLI shell. Dk decays the screen bit by bit. Frags displays memory fragmentation by listing the size of free memory blocks. Icontype changes the icon type. MonProc monitors processes for packet activity. MouseClock turns mouse pointer into a digital clock. Spew generates News of The World type headlines. Sb a sytem browser.
- **FFISH 65** - Sunmouse V1.0 automatically clicks in windows when the mouse is moved over them, RunBack starts programs from CLI allowing CLI window to close.
- **FFish 55** - ASDG-rrd a RAM disk that survives reset. BigView displays any size IFF picture. EGraph creates graphs from X,Y pair text files. Hyperbase V1.5 a neat database management system. MemClear Zero fills free memory. NewZap V3.0 disk sector editor. Rainbow makes Workbench background a rainbow. 2 Smusplayers to play SMUS IFF music files. View a tiny IFF picture viewer. WB to JX-80 screen dump.
- **FAUG 67** - Disk X V2.0 the sector editor. Hand Shake V1.06b a VT100 terminal emulator. Pack It a whole disk compressor.



FFISH62 "Hack the Adventure on Ffish 62'

- **FAUG 62** - Access! V2.6 very powerful telecommunications package. Hide it allows you to turn off and on your RAM expansion. Cron - runs a table of background tasks. Add Icon V1.0 adds icons to files without icons. IFF Mirrors is an ILBM slide show with X and Y mirroring. FFormat V1. a fast formattor.



FAUG50 'Dir Util version VI the disk manager on disk FAUG50'

- **FAUG 50** - Dir Util V VI the disk manager. Roll Back V1.0 rolls back text that has rolled off the top of the screen. Short Cut allows you to define text to a single key stroke, thus CLI commands are simpler to type.
- **FAUG 47** - FunKey assign any text string to a function key.
- **FAUG 37** - Star Chart V1.0 600 stars, galaxies etc. AM Cat the disk cataloguer. Macpaint picture viewer V1.2.
- **PAN 25A** - Disk Wipe very quick disk contents wiper. SELECT allows you to select in your Startup-Sequence from a number of scripts. Virus Check V1.1.

- **PAN 19D** - ZOO V1.42a a very good file compressor, Con Man V0.99b provides line editing and command line histories. Distinguish type of files with File Type, Pipe Handler, Pop CLI V3.0.
- **PAN 17B** - AmiGazer 1573 stars to view any time, date or latitude CLI only, Date Book the diary, bind any text string to a function key, use CLI from a menu, a disk cataloguer Lightning Logger V1.2.
- **SOFT 015** - Clip Art 1. Diskfull of low and high resolution clip art pictures.
- **APDC 18** - Floppy Disk Utils: Quick Copy V1.0, Disk Mapper, Disk Salvage, Virus check, System Utils: Blitz V1.0 text editor, TimeSet, ACalc calculator Amiga Monitor V1.1, MeM Grab fast memory grabber. DirectoryMaster V1.1
- **APDC 15** - Icon utilities: full of icon files and creators. Some animated! Brilliant disk for icon manipulation.
- **AMICUS 24** - Sectorama - disk sector utility, Iconize V1.0 reduce a full screen pic to an icon, BMon system browser, Virus Check v2.21 checks disk & memory, Boing Machine.

DEMO DISKS

- **FFISH 117** - AMUC a really good horizontal scrolling demo that is a 2400x200 pixel 32 colour IFF picture composed of digiview snapshots of members of the Amiga Users Of Calgary which are superimposed on the Calgary skyline.
- **FFISH 116** - Kahnankas is an Archimedes cradle, Rocker the rocking chair and F-15 a wire frame bomber.
- **FAUG 61A and 61B** - New Tek demo a 2 disk set that requires 1Mb RAM.
- **SOFT 127** - Disk full of Patrick Nagel pictures. Very Good.
- **SOFT 100** - Anti Trax 2010 demo disk. Brilliant graphics and sounds.

GAME DISKS

- **FFISH 118** - Empire is a multi-player game of exploration, economics, war etc. which can last a couple of months or more! Can be played locally or via a modem.
- **FFISH 63** - LARN the adventure V12.0B by the Software distillery. A fantasy adevnture.
- **FFISH 62** - HACK the adventure V1.0.3D by the Software distillery. It is a great game for adventure/ fantasy freaks with multi level game full of magic, monsters etc.
- **PAN 29B** - Amoeba space invaders, CosmoRoids, Stone Age a Boulder Dash type. BackGammon, Chain Reaction, Master Mind, Reversi, Black Jack, Crazy Eights, Klondike, Jig Saw, Keno, YachtC, Daleks and Ratmaze.
- **SOFT 042** - Chinese Checkers excellent version.
- **SOFT 117** - Empire, Gravity Wars, Hanoi, Hockey, Bikoff, Jackland, Othello Master, Pacman, all brilliant PD games.
- **SOFT 069** - Backgammon, Yahzee, TVision, Missile Command, Cosmo 2 and 3D Breakout.
- **SD 21** - Monopoly.

GRAPHICS DISKS

- **FAUG 42** - DBW Render a very good Ray Tracing utility.
- **SOFT 123** - Amiga MCAD V1.2.2 excellent Computer Aided Design package.
- **SOFT 022** - Disk Full of graphic utilities: Clip It! clip any part of the screen and save to disk, Filter Pics manipulate pictures with enhancers, edge definition, colour and size shifters, plus loads of excellent packages
- **SOFT 013** - Mandelbrot Explorer. Excellent full features mandelbrot designer.
- **APDC 13** - VDraw V1.19 brilliant painting program, Ray Tracer Generator, MCAD V1.2 an object orientated drawing package, IFF to pieces jigsaw program, ROT 3D drawing program.

LANGUAGE DISKS

- **FFISH 140** - Stoney Brook PROLOG v2.3.2. This disk contains the executables & libraries. In addition to providing a compiler SB-Prolog also offers advanced features such as dynamic loading, mixing of compiled and interpreted code, macros, extension tables & a debugging facility. *This is a 2 disk set that requires FFish 141.*
- **FFISH 141** - Disk 2 of the SB-Prolog of FFish 140. This disk contains the C and Prolog source codes.
- **FFISH 110** - A68K a 68000 assembler converted to accept metacomco source code. PD C an optimising C compiler for the 68000 processor.
- **FFISH 91** - The Adventure Definition Language (ADL).
- **FFISH 76** - This is the first disk of Chris Grey's Draco distribution for the Amiga. Draco is a compiled - structured language reminiscent of both C & Pascal. A full interface to AmigaDOS & Intuition is supplied. Be sure to get both FFish 76 AND FFish 77.
- **FFISH 77** - Disk 2 of Chris Gray's Draco distribution for the Amiga. Be sure to get both FFish 76 AND FFish 77.
- **APDC 25** - Logo, XLisp, Modular 2, MVP Forth.

MUSIC DISKS

- **SOFT 011** - Disk full of Midi text files, CZ instruments an dDMCS files.
- **SOFT 010** - Disk full of Midi utilities: Midi Util, Mid2, Panl V1.2 MidiBox, Cz-101 plus several DMCS midi songs.
- **AMICUS 23** - SMUS sound players, Music Craft to SMUS converter, Music Studio to SMUS converter and lots of instrument and sound files.

WORD PROCESSING DISKS

- **FFISH 135** - TeXF a selection of 78 fonts + conversion program to use them on Amigas. Range from 15-150 pixels high.
- **FFISH 93** - Dme V1.27 of the WYSIWYG text editor for programmers. MicroEmacs V3.8i the text editor.
- **SOFT 043** - Amiga Spell Aspelling Checker compatible with nearly all word processors. Supports multiple dictionaries.
- **SOFT 057** - WordWright the word processor. Type 'WordWright' on CLI. If you do not have an external drive type 'DF0:WordWright'.
- **APDC 17** - 2 Micro Emac editors: MicroGnuEmacs V1b and MicroEmacs.
- **FFISH 22** - 2 MicroEmacs the text editor - LEMACS V3.6 by Daniel Lawrence and Pemacs by Andy Poggio.

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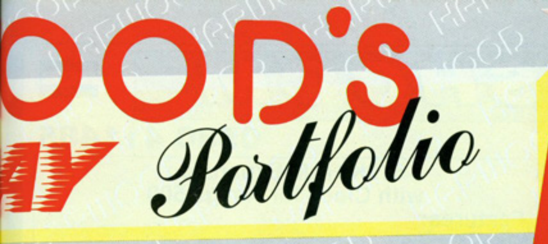
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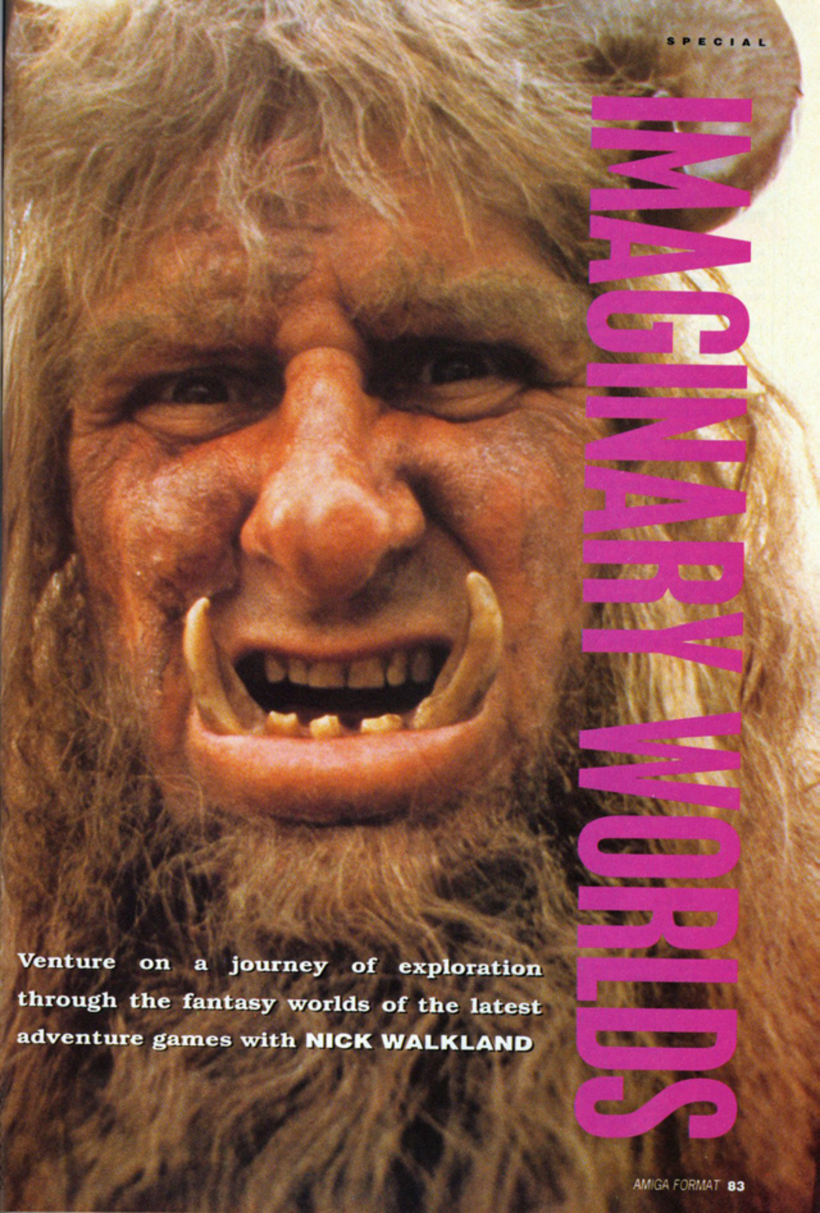
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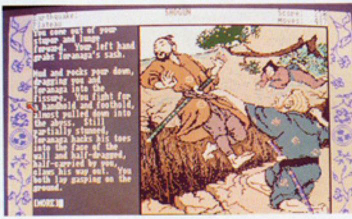
SHOGUN

Come to terms with the strange ways of a new culture, making your way to the very top in Infocom/Activision's feudal Japan

Ayyyeee!! Toranaga sama! Yes, time to put on your favourite silk kimono, warm up the saki, and boot up Infocom's *Shogun*.

First the novel, then the TV 'mini series', now the computer game. Hardened hack'n'slashers may be disappointed to learn that the game isn't a run-o'-the mill karate game and doesn't even offer the chance to slaughter hundreds of Ninja (well, maybe one or two). It is the adventure game of the best-selling novel and it sticks pretty much to the original format.

In the year 1600, European rivalry is ferocious and based upon religious differences. The Catholic nations of Portugal and Spain have spread their spheres of political and religious influence to the Far East. Their bitter rivals, the 'heretic' English and Dutch traders, are trying to get in on the act. The arrival of the Dutch ship 'Erasmus' piloted by Englishman John Blackthorne brings an interesting situation to the tense balance in Japan where the ruling samurai lords are vying for individual power. Quite intriguing.



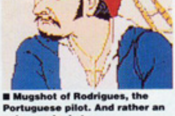
■ On shaky foundations: earthquakes causing severe problems.



■ You've got them dancing feet.



■ Ooh-err! Rampant about-to-be-goings-on in the bathtub.



■ Mugshot of Rodrigues, the Portuguese pilot. And rather an ugly mug he is too.

The basic aim of the game is simply to survive this strange culture, earn respect and become a high-ranking Samurai. Etiquette is king: forget to bow and it's as good as 'bye-bye head!' *Shogun* hardly classes as a real adventure game in the traditional sense, but more like living parts of the life of John Blackthorne via the individual scenarios which make up the game. Producing *Shogun* as many mini scenarios does cut down the enjoyment somewhat because you're stifled in choice of action and movement. For a few scenarios, movement is limited to one and only one area in which you have to make the right decisions to get the full points. Very restrictive.

As for graphics, the pictures are adequate, not great. Some do seem to convey the image of Japan as they are intended to do 'in the exquisite style of Japanese court painters...' There does seem, however, a great difference in quality of the graphics: some would hardly be adequate on a C64. The graphics are few and far between, though, which does offer a more digestable break-up of the text so that it doesn't really distract.

The amount of puzzles is negligible, yet the toughness of the game is high due to the day-to-day problems you face in this different culture. The game even seems to get easier as you progress further, which again is unusual. The main problem created by the mini scenarios is that they are linear: you must get past one to move on to the next, and can't try something else as you would do in a conventional adventure.

The game, though, has plenty of atmosphere and feel to it, and the textual descriptions are up to the usual high Infocom standard. Anyone who has seen the TV programme or read the book will enjoy this different approach, although without any prior knowledge of the storyline you could have difficulty getting the gist of what's going on. The scenarios do jump around, so it's easy to lose yourself on what's going on in the outside world. I still can't see the point in some characters who are mentioned and then seemingly forgotten about.

In my opinion, *Shogun* is the first real 'Interactive fiction' work by Infocom. It is an enjoyable read and play, but it is more of an experience in style than a really good adventure. There aren't many games in which you get urinated upon! As it stands it is worth a go, but for myself its a question of "Sayonara Anjin-San!" ■

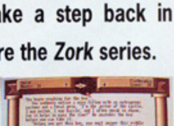
GRAPHICS	7
SOUND	4
INTELLECT	7
ADDICTION	7
OVERALL 76%	

ZORK ZERO

Infocom/Activision take a step back in time to the days before the *Zork* series.

There are *Zorks* and there are *Zorks*, but now there is the latest *Zork* which is the first *Zork: Zork Zero*. Confused? Well, I certainly was. After the famous *Zork* trilogy came the innovative *Beyond Zork*, and now the game which acts as a prequel to the originals has arrived. Bigger it certainly is: but is it any better for that?

Zork Zero begins with a prologue set over 90 years before the start of the game proper. Megaboz the Wizard kills the royal family and sets a curse on the Great Underground Empire. One of your ancestors witnesses this and it's thanks to him that you have the vital piece of information which gives you an advantage above all the other glory (and treasure) seekers. So off you tramp, collecting the necessary objects, travelling the massive Underground empire, facing some angst-creating puzzles, playing games and facing the soon-to-be infamous Jester.



■ Jester is being helpful for a change, but he still doesn't like losing to clowns like you.

Remember the Wizard in *Zork II*? Well, the Jester must be his predecessor: he appears to give tricky puzzles and hinderances. Yet he also offers help and gives you useful items. Life is one big joke to ▸

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▸ this guy, but you'd love to punch him in the mouth when he turns you into something that would not be out of place as a really nice pair of alligator skin shoes!

On your travels through the Great Underground Empire not only do you have to deal with the Jester but also some murderous problems. These puzzles are reminiscent of the original *Zorks* and often just as tough. A nice break is the use of visual puzzles or games such as Tower of Bozbar or the Zorkian card game, Double Fanucci. These can be played as a by-the-by once they've been solved, simply for a bit of light entertainment.

The landscape in *Zork Zero* is quite huge, set in the time before the 'White House' which is the familiar starting point in the originals. In fact, many of the open ends eventually get explained by the end – an added incentive to play through to the end. The abode of the curses' original victim – Lord Dimwit Flathead the Excessive – contains everything from a massive underground lake, a 400 storey office and a closet large enough to sleep an army.



■ Scouring the Encyclopedia Frobozzica: I wonder why the jester didn't like his portrait?



■ Flattened slime monster and sundry other squished creatures. Is this really art?

Excessive indeed, making the Underground Empire finally appear to be 'Great'.

Graphics are minimalized in this particular Infocom 'graphic' game, limited to the occasional graphic depiction of the games, the portrait and pictorial descriptions in the Encyclopaedia Frobozzica. Not a full-blown graphic adventure, the text is enhanced by only a pretty border, so it retains the old feel of the older *Zorks*. Howver, it features the same rich, flowing text found in any classic Infocom adventure, and the graphics do actually enhance the game without spoiling the flow.

Zork Zero holds your attention, but never really pulls you in completely. Atmospherically, the old *Zork* is there, but seemingly dated: where are the other characters? Just a few scattered beings are present, who are solely an extension of the puzzle without trace of intelligence. This isn't a major flaw, as the game returns with a fantastic parser, on-screen mapping, and the incredibly useful mouse-controlled movement compass. It's so much friendlier than other Infocom games, and so damn good to look at, even without pictures. ■

GRAPHICS	8
SOUND	9
INTELLECT	8
ADDICTION	9
OVERALL 92%	

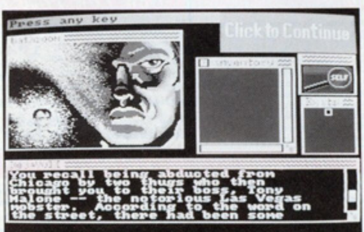
DEJA VU II

LOST IN LAS VEGAS

When the boys from the Mob decide to interview you over the head with a brick, Icon Simulation/Mindscape leave you dazed

Life sure is tough. One minute you're snacking in Chicago, the next you're abducted, grilled by a Vegas mobster and then beaten senseless. Fun times.

Your task is simply to raise a mere 100,000 in pretty green within seven days or face the consequences. We've heard it all before, but the muttonheads following you are pretty mean sonovabitches and will rather pull out their own finger nails than let you survive. The odds aren't in your



■ Bringing back memories of the night before.



■ ■ So you thought you could escape the Mob?

favour, matey. Can you sort out the real clues from the dross? If so, you may avoid the cold metal against your head and live to tell the tale back in Chicago.

The sense of *Deja Vu* hits you from the onset – very reminiscent of the original. I almost thought they'd sent me the first by mistake. The gameplay is identical, the same mouse-controlled action which, once you get used to it, is so easy. Click on the action and double-click on the object: what could be simpler?

Wandering around this true graphic adventure game is enjoyable, although it is slow in places with frequent disk loads. Every action causes the green light and 'dwhirr' to occur, which is just about acceptable because you'll be busy scouring the windows for your next choice of action. Quick movements around the landscape are a problem: even more so if some object is moving or some sound effect is in action.

The sound effects are very well sampled and clear but, as usual, there is never enough. To make up for this I have this unexplainable



■ A warning for people who play on railway lines.

urge to smash every window and mirror in the game or wait around in the train station for the unforgettable 'Awl Aboooooaard!'

Graphically the game is good – colourful, concise and clear – anything too extreme could make the game unplayable with the mouse control. In fact everything within the graphic window can be manipulated, obviously with varying results. Mobsters, cacti and clear stumps all have the same intelligence and are treated the same, but it simplifies the game to such an extent that the computer does the work.

Deja Vu II isn't mind warping in the typical puzzle adventure sense, but death or trouble occurs via the simplest of decisions: getting on the wrong train, walking around without your clothes, hitting passers-by. Commonsense things really, but easily overlooked in this adventure.

Altogether, *Deja Vu* is a really good and enjoyable romp. Its not a traditional tough text adventure, which will give it a wider appeal. Pretty pictures, good sound, it's easy to use, requires no typing skills and there isn't a bug-eyed monster in sight. An adventure for lazy nights – slouch back in a comfortable chair, put the mouse on your lap and get engrossed in the criminal underworld of *Deja Vu II*. ■

GRAPHICS	9
SOUND	4
INTELLECT	8
ADDICTION	5
OVERALL 82%	

ARTHUR

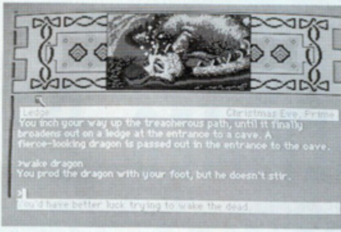
The legend of the Sword in the Stone is brought to life by Infocom/Activision.

The land and times of King Arthur have always been a popular basis for computer adventure games, going right back to the Spectrum's heyday. And why not? They have always proved extremely popular and it seemed only a matter of time before those masters of the genre, Infocom, got involved.

Fortunately, *Arthur* isn't one of the communal everyday quests for the Holy Grail or a happy 'big lads' chat' around a Round Table. In this version of the perennial favourite, you play the part of Arthur (as the title suggests) before he is invested King or, indeed, before Excalibur is even drawn from the stone.

The aim of *Arthur*, therefore, is to claim your birthright as King of England by drawing the sword, and challenging the possible usurper, King Lot. Of course, life tends to be a touch more difficult: side quests, problem characters, troublesome creatures, swamps and riddles of the usual Infocom devious nature. All in order to gain various kingly virtues of Wisdom, Experience and Chivalry to prove to Merlin that you are ready and able to be once and future King.

Arthur isn't completely alone and helpless in his quest. Merlin



■ Some drinking partners, those dragons are! It's pathetic really...

has given him certain powers to transform into several creatures – an Owl, a Salamander, a Turtle, a Badger, and an Eel – all of which have their respective powers which are easy to apply to the situations you are likely to come across. Also you have a magical torc which oh-so-handily shows a hint menu. This can come in useful if you're in a dire situation, but the temptation is always there for you to take a peek at a problem you could have solved normally in a few seconds.

Graphically, *Arthur* is the most impressive of the Infocom 'Graphic range' with pretty, if small, still pictures in every location. These aren't the ultimate, but they certainly enhance the game's feel: and if you're a die-hard text only fan, these can be switched off. On-screen mapping is an extra bonus if, like me, you'd prefer to play the game rather than put pen to paper at every move.

Arthur isn't one of the toughest Infocom adventures, but then it has its moments. A few puzzles are quite brain-tickling, but these are few and aren't especially devilish. Others problems are quite tough, but most are blatantly obvious.

Atmospherically speaking, however, *Arthur* is supreme. You feel drawn deep within the story and have a deep desire to return to the computer. The final drawing of the sword will leave you elated, yet with a tinge of loss. You don't want the game to finish – and why should you? Arthur would have many more adventures ahead of him. It's a shame ours ends as Arthur becomes King.

Live the legend, become the boy Arthur and claim your birthright. I can guarantee hours of pure enjoyment. ■

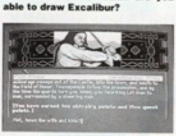
GRAPHICS	9
SOUND	7
INTELLECT	9
ADDICTION	7
OVERALL 89%	



■ Black knights always act cocky, but they seem to regret it later.



■ The moment of truth: are you able to draw Excalibur?



■ A cosy little get-together with that friendly chap, King Lot.

GOLD RUSH

"Go West, young man!" is the cry from Sierra On-Line

"GO WEST YOUNG MAN!" was the cry in this 'true to life historical simulation' and '3-D animated adventure game.' Sounds too good to be true doesn't it? So warily I set off, trekking as a famous 49er, or even a 48er as in this game...

You start the game after an irritating prologue in Brooklyn as a 'young city slicker' looking for excitement and Big Money by striking it lucky in the Gold Rush Country. Deciding how you're going to travel is one of the choices which will enhance the adventure – you can go cross-country on wagons and steamers, cross over at Panama or sail around Cape Horn. This choice is actually the highlight of the game – playing each individual expedition hoping it will be better than the previous one.

The graphics are crude, the animation is not particularly smooth and the gameplay is tediously slow, even in 'fast' mode. It is obvious, however, that the game's authors had researched the game, and planned each graphic screen, (which have to be individually loaded) which would be fine if it



■ Life sure is lonely in the great outdoors: camping in the wild with the seasoned veterans.

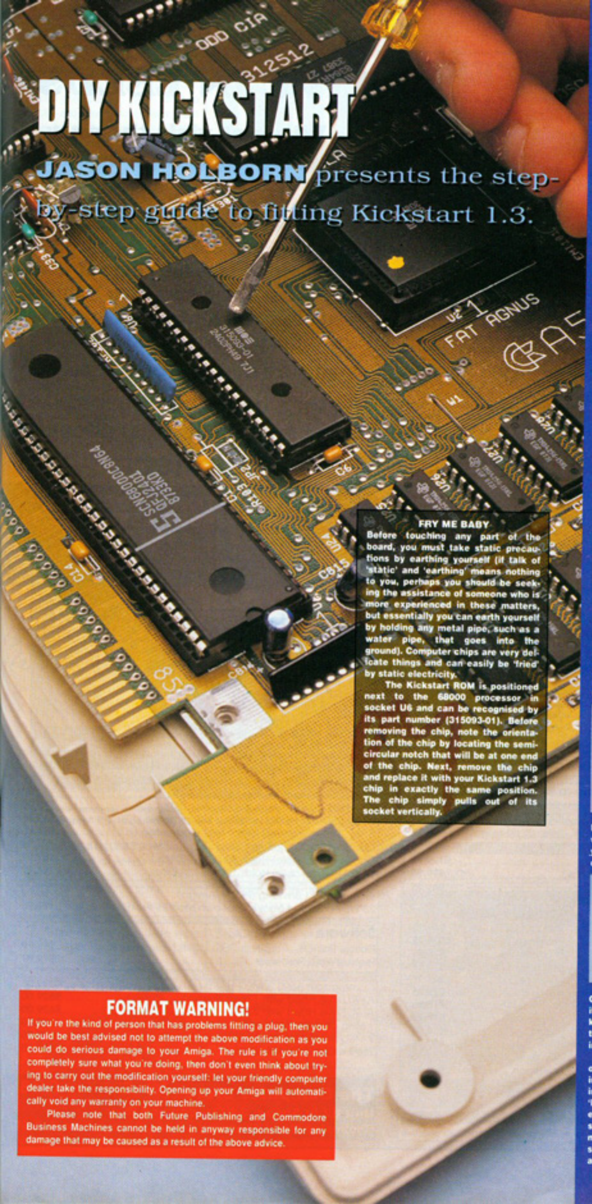
worked. The game's control interface is unhelpful and confusing at best, and the written descriptions are a nonentity. Puzzles are few and general common sense can reach through these – else you face an inglorious death. The non-player characters appear solely to be information givers, inept to do anything else except, perhaps, ignore you.

In reality, it seems a travesty to release such a slow, crude and basic game to Amiga owners who should rightly expect something better – in either graphics or gameplay. The game looks like it was created for a 12-year-old American kid studying American history – it even feels like educational software and not something to play for sheer enjoyment. Go West Youn... No thanks, I think I'll remain a city slicker, I won't have to go through all that again. ■

GRAPHICS	4
SOUND	3
INTELLECT	2
ADDICTION	5
OVERALL 38%	

DIY KICKSTART

JASON HOLBORN presents the step-by-step guide to fitting Kickstart 1.3.



Hands up who hasn't upgraded their Amiga to Kickstart 1.3! Hmm, just as I thought: quite a few of you. Well, *Amiga Format*, in conjunction with those nice chaps at Commodore Technical Support, now provides the complete guide to installing the new Kickstart 1.3 ROM in your Amiga A500. If you do wish to carry out this modification, the Kickstart ROM is available from HRS on 021 789 7575 (part number 315093-02).

To identify which version of Kickstart your machine has installed, turn on your machine without a disk in the internal drive and wait for the 'Insert Workbench' prompt to appear. Underneath the hand holding the disk will be a number identifying the Kickstart release. If it says '1.3' then you already have Kickstart 1.3 within your machine.

DISMANTLING YOUR MACHINE

The first thing you must do is unscrew and then remove the cover from your machine. Be very careful not to lose any of the screws, because these will have to be replaced once the installation is complete.



Next, unplug the cable that connects the keyboard to the main board while noting the orientation of the connector (If the keyboard connector is plugged back in the wrong way, your machine will fail to work).



Finally, unscrew and remove the silver shield that covers the board and you're ready to get down to the serious business of replacing the ROM.



Once Kickstart 1.3 is sitting snugly in its chip holder, replace the shield, the keyboard (don't forget to make sure that the keyboard connector is plugged in the right way round!) and casing.

Now comes the moment of truth: once you've plugged everything back in, turn on your machine without a disk in the internal drive and wait for the 'Insert Workbench' screen to appear. If everything has gone OK, the hand should have '1.3' beneath it. If your machine fails to display this initial screen, turn everything off and seek the assistance of a qualified engineer. ■

FRY ME BABY

Before touching any part of the board, you must take static precautions by earthing yourself (if talk of 'static' and 'earthing' means nothing to you, perhaps you should be seeking the assistance of someone who is more experienced in these matters, but essentially you can earth yourself by holding any metal pipe, such as a water pipe, that goes into the ground). Computer chips are very delicate things and can easily be 'fried' by static electricity.

The Kickstart ROM is positioned next to the 68000 processor in socket U6 and can be recognised by its part number (315093-01). Before removing the chip, note the orientation of the chip by locating the semi-circular notch that will be at one end of the chip. Next, remove the chip and replace it with your Kickstart 1.3 chip in exactly the same position. The chip simply pulls out of its socket vertically.

FORMAT WARNING!

If you're the kind of person that has problems fitting a plug, then you would be best advised not to attempt the above modification as you could do serious damage to your Amiga. The rule is if you're not completely sure what you're doing, then don't even think about trying to carry out the modification yourself: let your friendly computer dealer take the responsibility. Opening up your Amiga will automatically void any warranty on your machine.

Please note that both Future Publishing and Commodore Business Machines cannot be held in anyway responsible for any damage that may be caused as a result of the above advice.

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WORKBENCH

It's Enormous! You thought three pages of tips and tricks was too good to be true, but as from this issue, **JASON HOLBORN** presents a whacking four pages of the very best tips, tricks and advice.

WORDS OF KINDNESS

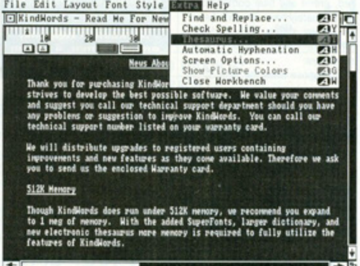
I have collected over 70 extra fonts and placed them on two disks and have successfully been able to use them with the majority of my software. Unfortunately, I cannot find a way of incorporating these extra fonts into my favourite word processor, *Kind Words 2*.

I have tried assigning the logical device 'FONTS:' to my fonts disk, but *Kind Words* still continues to use its own default fonts. Please help.

D OAKLEY
MIDDLESBROUGH

Kind Words 2 uses special, custom printer drivers and 'Super Fonts' which (supposedly) give the best possible print quality on even the naffest of printers. Unfortunately, this means that you can only use the fonts that are included with the package.

If you do want a similar program to Kind Words *that does allow you to use extra fonts, check out the far superior program* ProWrite 2 *which is available from the Amiga Centre Scotland (031 557 4242).*



■ Does anyone know how to use standard Amiga fonts with *Kind Words*? If it is possible, please get in touch and tell us!

LOADSAQUESTIONS....

I have owned an Amiga 500 for a year now and during this time I have accumulated some questions that I would appreciate some answers to:

1. A few months ago, there were various reports of a new virus that supposedly lived in the battery backed clock. Is this possible?

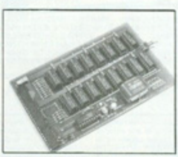
2. Is it possible to use the functions written on the front of some of the keys on the numeric keypad (NumL, PgDn, PrtSc, ScrL etc)?

3. Before buying an Amiga, I owned an Acorn Electron which is used extensively for BASIC programming. Both the BBC Master Compact and the Electron use 3 1/2 inch disks. Is it possible for the *BBC Emulator* to read my BASIC programs straight from the BBC disks?

4. My sister recently bought a Technics EX35 organ with MIDI and I am considering purchasing a MIDI interface so that I can connect it to my Amiga. Will the organ be compatible with existing hardware and software? (I own Activision's *Music Studio*.)

5. On Issue 13 of your parent publication, *ST/Amiga Format*, the cover disk contained a PD virus killer called *VirusX 3.10*. While looking through the documentation, I found a reference to a *System Z* virus. Is this in any way linked to the *System Z* virus killer that writes itself to bootblocks?

A HARDING
NORWICH



■ Is there a virus lurking within your RAM expansion?

1. The simple answer is no. The miniscule amount of RAM used by the battery backed clock would make writing such a virus impossible.

2. Those funny little functions are in fact for use with the A2000 bridgeboard PC Emulators (don't ask me why the A500 has them!) When in Amiga mode, these functions have no effect whatsoever.

3. Unfortunately, the BBC Emulator *cannot read BBC disks directly. However, it includes built-in software to allow you to port files across by connecting a lead between the Beeb's RS-423 and the Amiga's serial port.*

4. You shouldn't have any problems using your Technics keyboard with the Amiga. MIDI is only a standard communications protocol between musical instruments and is (largely) manufacturer independent. If an instrument claims to support MIDI then it will (for 'will', read 'should') work with all Amiga MIDI software. For MIDI applications, Music Studio *isn't the most suitable software, why not check out* Music X*? (Read the review on Page 20.)*

5. The System Z *'virus' that is trapped by* VirusX *is in fact the same bootblock that is output by the* System Z *virus killer. Although* VirusX *treats it as a virus, it doesn't seem to do anything harmful (correct me if I'm wrong!)*

GIVE ME SOME INFO

When using my Amiga for programming, I often find that I need to know how much disk space is available on a particular disk in my drive. At the moment, I have to load up the *RSLClock* program that was published on the cover disk of *ST/Amiga Format*'s second issue. Unfortunately, I don't really want to have to load this program every time I want such a mundane piece of information. Is it possible to write a machine ▶



■ Using the INFO option in CLI to assess the free space on a disk.

▸ code program (I have Devpac 2) that would tell me what I want to know?
P STEVENSON
BISHOPS STORTFORD

You're making life very difficult for yourself. All Amiga Workbench disks have a little CLI command called 'INFO' which will tell you everything you want to know. To use it, just type INFO and press return and the command will tell you the amount of space used/available on all drives connected to the system.

FONTS FROM BASIC

Could you please tell me how to use fonts other than the standard Topaz system font within my own AmigaBASIC programs. I've tried everything including the method used by NotePad, but nothing seems to happen.
T BRICE
NORWICH

To use different fonts within your BASIC programs, you'll have to call the operating system routines. The Amiga font handling routines are held within the disk-based library 'diskfont.library' which resides within the LIBS: directory of every self respecting Workbench disk. As well as this library, AmigaBASIC also needs access to diskfont's '.bmap' file which will have to be created using the 'ConvertFD' program in the Basic demos drawer on your Extras disk. To use these routines, use the source code stub below:

```
DEFLNG a-Z

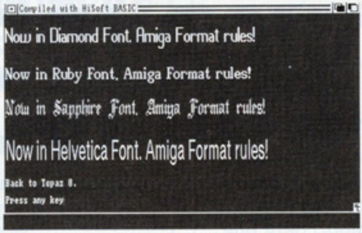
LIBRARY "graphics.library"
LIBRARY "diskfont.library"
DECLARE FUNCTION
OpenDiskFont LIBRARY
DECLARE FUNCTION OpenFont
LIBRARY

FontName$ =
"diamond.font"+CHR$(0)
PointSize = 20

FontAttr(0) =
SADD(FontName$)
FontAttr(1) = PointSize *
65536&

FontPointer =
OpenDiskFont(VARPTR(FontAt
tr(0)))
IF FontPointer = 0 THEN
   PRINT "Unable to Open
Font."
   GOTO Abort
END IF

CALL SetFont(WINDOW(8),
FontPointer)
```



■ **Enhance your AmigaBASIC screens is made (at least relatively) straightforward with our 'Fonts from Basic' routine below.**

```
PRINT "Now in Diamond
Font"
CloseFont(FontPointer)

FontAttr(0) =
SADD(("topaz.font"+CHR$(0)
))
FontAttr(1) = 8 * 65536&
FontPointer =
OpenFont(VARPTR(FontAttr(0
)))
CALL SetFont(WINDOW(8),
FontPointer)
PRINT "Back to Topaz 8"
Abort:
LIBRARY CLOSE
```

DIGITISED DELIGHTS

I am very interested in buying a video digitiser for my 1 MB Amiga 500, and after reading Michael Nash's letter in Issue One, I decided to look into the digitising scene a little further. I have a budget of around £150 which will hopefully cover the digitiser hardware and the *DigiView Gold* that you recommended seems to be the best bet. However, could you please answer the following questions.

1. Do I need to buy any extra hardware to allow me to digitise colour images from a video recorder?
2. Can you digitise images from video tape while the tape is playing, or do the images have to be paused?
3. If you have to use a black and white video camera for digitising 'live' images, does this mean that I have to use black and white video tape to grab images from?
4. I have a movie camera which uses Super 8 film. Is there any way of using this camera to digitise real life images other than converting the 8mm film to VHS format?

J WARNER
BATH



■ **A typical digitising set-up, composed of an Amiga, a video camera, a digitiser and a lead.**

1. To be able to digitise colour images from video, you'll need a rather expensive piece of hardware called a composite signal decoder which basically splits a composite video signal into its red, green and blue components. Unfortunately, we haven't heard of anyone selling such a device for use with home video recorders.
2. To digitise while the tape is running, you'll need a real-time digitiser which grabs its images at one fiftieth of a second. Because of the very slow nature of DigiView, you'll have to pause the image for at least ten seconds.
3. While it is possible to digitise both colour and black and white video images from tape, best results are achieved when digitising from old black and white films.
4. If you can display a still from a Super 8 movie on the projector screen, then grab it from there.

TELL ME SOMETHING I DON'T KNOW PAL!

Have you got a problem with your Amiga that needs answering? If the answer is 'yes' then look no further than the Workbench Helpline for the answer. Obviously we can't enter into personal correspondence, but if you've got any questions, then we'll try our utmost to answer them as fully as possible within these pages. Send your troubled words to:

Workbench Helpline, Amiga Format, 4 Queen Street, Bath BA1 1EJ

TOTALLY RAD!

Using the Workbench RAD device to imitate a full 880K floppy disk.

While on the subject of Mountlists (refer to the tip 'CORRUPT DISK SHOCKER' if you don't know what I'm talking about!), those of you with more than a megabyte of memory can speed up disk copying by expanding the Workbench 1.3 'RAD:' device to a full 880K (same as a floppy disk).

To do this, load the MountList file into Ed using the command ED DEVS:MOUNTLIST. Next, locate the mountlist entry for RAD: and, in particular, the line that reads 'HighCyl = 21'. Change this line to read 'HighCyl = 79' and then save and quit the editor. Finally, type MOUNT RAD: and you now have a recoverable (and bootable if you have 1.3 Kickstart!) extra disk drive that can be used in the same manner as any normal floppy drive.
MP SAUNDERS
DORSET



■ **Instead of a second drive, use RAD!**

GURU'S GUIDE

When your Amiga crashes, it might be nice to know why.

The Amiga is undoubtedly a wonderful machine. Not only can it produce better sound and graphics than the vast majority of comparable machines, it can also crash far more impressively than most. You don't just get a 'Bus Error – core dumped' message or even a couple of meaningless bombs appearing on the screen: the Amiga crashes in style matey.

But just what do those seemingly meaningless Guru Meditation numbers really mean? Are they just the product of a tortured mind or can they really be of help to the average user? It must be said that Guru Meditation numbers aren't really a great deal of use to the average user, but if you're a programmer, then you'll find them immensely useful.

Guru meditation numbers have a general format which once you've learned how to decode them, a wealth of information will be revealed to you. The format for the code is **xxyyzzzz.pppppppp**, where 'xx' is the particular part of machine that has caused the crash, 'yy' tells you the error class, 'zzzz' tells you exactly what happened (eg. RAM out of memory etc) and 'pppppppp' tells you the starting address of the task that caused the crash (there's no escape from the Guru!) Below is a list of the more common error codes.

XX NUMBERS

(System ID codes)

00 68000 CPU Trap
05 Math Library
07 DOS Library
09 Icon Library
10 Audio Device
13 Keyboard Device
14 Trackdisk Device
15 Timer Device
30 Bootstrap
31 Workbench
81 Exec Library
82 Graphics Library
83 Layers Library
84 Intuition Library

YY NUMBERS

(Error Classes)

01 Not Enough Memory
02 MakeLibrary Error
03 OpenLibrary Error
04 OpenDevice Error
05 OpenResource Error
06 I/O Error

ZZZZ NUMBERS

(Error Codes)

Exec
0001 CPU Trap Checksum
0002 ExecBase Checksum
0003 Library Checksum
0004 No Library Memory
0005 Corrupted Free Mem List
0006 No interrupt memory

Graphics
0001-5 Copper Error
0006-A No Memory

Intuition
0001 Unknown Gadget
0002-5 No Memory
0006 Item Box Error
0007 No Memory for new screen
0008 No memory for AllocRast()
0009 Unknown system screen
000A No memory for add gadgets
000B No memory for open window

Dos
0001 No memory for startup
0002 Taskend failed
0003 Packet failure
0004 Unexpected packet failure (Oo-err!)
0005 FreeVec() failed
0006 Disk block sync error
0007 Corrupted bitmap
0008 Key already set
0009 Bad checksum
000A Disk Error
000B Key out of disk range
000C Foul Overlay

Trackdisk
0001 Seek Error
0002 Error Wait

Boot
0001 Bootsector Error



■ **The A2000 'CPU unit' and keyboard, with the infamous 'telephone-cable style connecting lead'. Which is always too short...**

A2000 KEYBOARD TRICK

If you just can't get that keyboard far enough, try this little tip.

External keyboards are all very nice, but why do computer manufacturers always make the connecting leads so short? Thankfully, you can extend the length of the A2000 keyboard very cheaply and, best of all, without ever having to snip a single wire.

The A2000 (and the B2000) keyboard uses a five-pin DIN type connector to connect to the main system box. This five-pin DIN socket is the same connector used by many audio, video and MIDI devices and so an appropriate lead shouldn't be too hard to find. What you'll need is a lead that has a male five-pin DIN connector on one end and a female five-pin DIN on the other end. This should then be connected between the Amiga and the keyboard. I know, the comment 'Why didn't I think of that before' springs to mind!

A FREE VIRUS KILLER!

Yes, you may already own this entirely FREE bootblock checker!

Calling all Workbench 1.3 owners! Did you know that your all new improved Workbench disk includes a freebie virus checker/killer? You didn't? Then read on...

It isn't really surprising that you haven't found this little gem as the manual writers at Commodore have done their utmost to hide the fact by using the smallest possible font size that their typesetter can manage.

The virus killer is built into the CLI 'Install' command which is used to construct boot blocks on floppy disks. To use it, you must first enter the CLI and then just type INSTALL DF0: CHECK. The 'Check' option tells AmigaDOS to compare the bootblock of the disk currently within the internal drive with a standard 'clean' ➧

bootblock. If the bootblock appears suspect, then Install will return 'MAY NOT BE STANDARD V1.2/V1.3 BOOTBLOCK', else it will return 'APPEARS TO BE STANDARD V1.2/V1.3 BOOTBLOCK' if everything seems clean and healthy.

If Install thinks that the bootblock is suspect, all you have to now do is to type 'INSTALL DF0:' and the potential virus will be sent to live on the great floppy disk in the sky.

C CANNON
ROMFORD

VIDEO VISUALS

There's only one way that Kylie Minogue is ever going to get on our Amiga...

So you've got yourself an Amiga plus monitor and access to a video recorder: how would you like a free TV thrown in to the bargain? Read on, matey.

What you'll need is a pair of leads with phono connectors on one end and the appropriate connectors on the other end to connect to the 'Video Out' and 'Audio Out' sockets on your VCR. First of all, just connect a lead between the VCR 'Video Out' socket and the 'CVBS/L' connector on your 1084 and then do the same with the 'Audio Out' and 'Audio' connector on the VCR and Monitor respectively. Once everything is connected up, pull down the front panel on the 1084 and press in the little button labelled 'CVBS/RGB'. Now when you play a tape on the VCR, the picture will be displayed on your Amiga monitor. If the video display seems to become corrupt when you turn on the Amiga, try unplugging the SCART lead that connects the Amiga to the monitor.



■ **Kylie Minogue could be appearing on your Amiga soon!**

If you also have an aerial lead plugged into the VCR, while a tape is not running you'll be able to watch Neighbours on your 1084 (which is hopefully the nearest we'll ever get to having a Neighbours program running on the Amiga!)

NATALIE FINN
FROME

COLOURFUL CRASHES

Screen colour can be informative.

Many of you may have noticed that when the Amiga is first on, the screen cycles through shades of grey before the 'Insert Workbench' prompt finally appears and the Caps Lock light flashes. This rather strange process is called a 'self-diagnostic' and is basically the Amiga testing all its various bits and pieces to make sure everything is working OK. Owners of the A1000 even have an extra diagnostic when the machine is first turned on: the Amiga actually plays a little tune before booting Kickstart from disk!

If your machine is OK, the sequence will be : dark grey, light grey, white and then finally the Insert Workbench requester pops up. If something goes wrong with your machine, the screen will turn to a certain colour to indicate a particular fault. Here's a guide to those kickstart colours:

Green – Chip RAM Failure
Yellow – 68000 trapped before Guru initialised
Blue – Error in PAD (custom chip error)
Red – ROM failure

PATRICK DOWNES
PONTYPRIDD

50 BIG ONES JUST FOR YOU

Workbench just keeps on growing. As a result, we need you to send us your tips and tricks. If you've got have any trendy little tips that you think would be of use to your fellow Amiga owners, then why not jot them down and send them into Workbench: you could win yourself £50 for your troubles. Send your tips to:

Workbench, Amiga Format, 4 Queen Street, Bath BA1 1EJ.

£50 IS WAITING FOR YOU!

CORRUPT DISK SHOCKER!

Not just disk first aid: this is more like open heart surgery.

It really is very annoying to insert a disk into a drive only to get a 'Validation Error' prompt pop up every time. Usually, you can save the disk by either using the Diskdoctor utility or by reformatting it from scratch. Sometimes, however, a disk can be so badly corrupt that it won't even reformat and so it usually ends up in the bin.

But, as it happens matey, there is a way of partially getting around this by messing around with the Workbench Mountlist to create a custom device that only uses those tracks that come before the corrupt tracks.

First of all, format the corrupt disk using the 'Format' command and note down the track number that causes the format to fail. Now type ED DEVS: MOUNTLIST to load the Mountlist file into the CLI text editor, Ed. Once Ed appears, search through the file for a Mountlist entry for a device called 'DF2:' which will look something like the entry below:

```
/* Mount a 5.25" disk drive to be
mounted as DF2: */

DF2: Device = trackdisk.device
Unit = 2
Flags = 1
Surfaces = 2
BlocksPerTrack = 11
Reserved = 2
Interleave = 0
LowCyl = 0 ; HighCyl = 39
Buffers = 20
BufMemType = 3
#
```

Firstly, change the 'Unit = 2' line to read either 'Unit = 1' (if you have two drives) or 'Unit = 0' (if you have only one drive). Next, change the line 'HighCyl = 39' to read 'HighCyl = nn', where 'nn' is the number of the last track that the Format command was able to successfully format before encountering the corrupt tracks (take one away from the track number that you wrote down). Finally, type MOUNT DF2: and then format the corrupt disk using FORMAT DRIVE DF2: NAME "Empty". Now, whenever you wish to access the disk, you must refer to it as DF2: regardless of which drive it is in.

MP SAUNDERS
DORSET

GAMEBUSTERS

There's no need to cry, there's no need to hit the bottle or kick the cat! Just count to ten, take a few deep breaths and then turn to Gamebusters to see just how you're supposed to get past that monster and on to the next section.

KULT

Here's how to solve those five ordeals (if you think you should!)

1. DE PROFUNDIS

You will need the rope for this ordeal.

Enter the room and wait for a hook to lower from the ceiling. Latch your rope onto it and hang on until the monster reappears, then click on the monster and drop onto it and wait until it carries you to the other side of the room where you can collect your skull.

2. THE TWINS

You will need the goblet for this ordeal.

Go through the door to the left of the serpents into a room called 'The source'. Inspect the statue in the fountain. Press the eye of the statue and water will pour from the statue: fill your goblet. Now return to the room with the serpents and pour the water into the left serpent's mouth. Take the die that floats to the surface and throw it (it usually comes up a two), remember the number then drop it into the mouth of the second serpent and the other door will open, so go through it.

Then lift the number of hands that was shown on the die and press the head: if you lift the correct hands the small partition will open and a symbol will be revealed. Go back into the source and examine the six cubes beneath the fountain, lift the lid of the one with the corresponding symbol to receive the skull.

3. THE WALL

You will need the dagger for this ordeal.

Enter the room and press the third mark on the floor, them press the first mark followed by the second. The sliding doors should now be together: if they aren't then repeat the process using different combinations. Once the doors are together go through the left hand door. Stand on the step and put the dagger in the slot on the knight, the wall will flip over revealing a passage on the right: go down it and put your hand in the hole to receive a skull.

4. IN THE SCORPION'S PRESENCE

You will need the fly for this ordeal.

Firstly you need to pray to the large black statue, then go through the door in front, crawl up to the mistress and give her the fly. Refuse her offers of kisses etc and feed the fly to the blue spider. Take the red spider and put it into the mouth of the large statue and a door will open. Go past the man who appears and take the skull.

5. THE NOOSE

You don't need anything for this ordeal.

Enter the room and use solar eyes if it's dark. Grab hold and climb the left rope up onto the platform. Pull the lever to kill the Poormouth (who plays no part) and examine the hollow in the platform to get the skull. Then pull the lever again and take the left hand rope before exiting the room. Bingo!

GARY CROOK
ROYSTON



SLEEPING GODS LIE

Maps and hints on how to get through the first three lands courtesy of the people behind the game, Oxford Digital Enterprises.

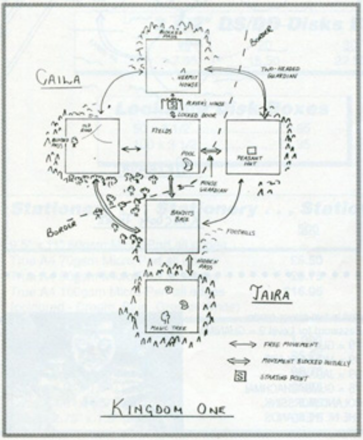
1. In the hut, pick up the pebbles and bowl, and head through the north door. Head north to meet the old man. Pick up any ammunition you find and then head through the east exit. Head south and find the molehill which will contain your back door key. Exit west and enter southern Caila, find the pool and fill your bowl.

Go back to eastern Caila and head south until you see two trees close together - give the water to the trees and they'll let you pass into northern Taira. In the north corner you will find the bandit leader. Shoot him and take the map. Go to the eastern exit and you'll enter western Caila which contains a peasant's hut. Inside you'll find some mouldy cheese which you can feed to the mouse creatures who'll then let you pass.

Find the two-headed creature at the north end of western Caila and once you've killed it pick up the Circlet of Concentration which it will drop. This reveals a narrow path in the south east corner of northern Taira (the hermit will tell you about the pass if you take the map back to him). The pass takes you through to southern Taira where a magic tree will transport you to the next kingdom.

2. In the first landscape you will meet Prince Gregor who will follow you about the kingdom. Travel east or south to one of the next landscapes (by going through one of the closely spaced trees at the east or south boundary), and you will find the entrance to the dwarven caves at the southern bound-





BATMAN

Fancy infinite energy? Then simply type in this listing.




```
10 DIM CODE%(255)
20 FOR N=0 TO 151
30 READ A$:A=VAL("&H"+A$)
40 CODE%(N)=A
50 NEXT N
60 CHEAT=VARPTR(CODE%(0))
65 CALL CHEAT
70 REM TYPE IN THIS LISTING AND SAVE IT FOR FUTURE
USE
80 REM INSERT BATMAN DISK AND RUN THIS PROGRAM
90 REM GAME SHOULD LOAD AS USUAL BUT WITH INFINITE
LIVES
100 DATA 41FA,0014,43F9,0007,FE00,2F09,707F,22D8
110 DATA 51C8,FFFC,4E75,70FF,2C78,0004,4EAE,FEB6
120 DATA 2200,5280,6700,00A6,4BFA,014E,3AFC,0400
130 DATA 429D,3AC1,93C9,4EAE,FEDA,2AC0,2A8D,2B4D
140 DATA 0008,589D,4295,4BFA,00F0,1ABC,0005,3B7C
150 DATA 0030,000A,41ED,0038,2B48,0006,41FA,00C0
160 DATA 7000,7200,43FA,00CA,4EAE,FE44,4A80,6600
170 DATA 005C,700C,99CC,6118,7002,49F9,0007,0000
180 DATA 610E,45EC,01FE,47FA,0026,613A,4EEC,000C
190 DATA 43FA,00C2,22FC,0000,0400,22CC,4299,7230
200 DATA 93C1,3340,001C,3341,0012,4EEE,FE38,2057
210 DATA 217C,5354,4152,06CE,317C,5400,06D2,45E8
220 DATA 01CC,47FA,000A,34FC,4EF9,248B,4E75,43F8
230 DATA 0560,2F09,22FC,1038,1281,32BC,4E75,45F9
240 DATA 0007,060A,47FA,0004,60DC,4278,00EC,223C
250 DATA 038E,05A2,203C,11FC,0000,B0FC,4D28,6706
260 DATA 223C,0374,0596,2180,1000,31BC,303C,1006
270 DATA 4841,2180,1000,31BC,4E71,1006,4ED0,7472
280 DATA 6163,6B64,6973,6B2E,6465,7669,6365,0000
```

MARK LAWRENCE
BASILDON

VIGILANTE

Get onto the high-score table and enter your name as GREEN CRYSTAL to enable the cheat mode: then you can increase your lives by pressing F1 and skip levels by pressing F8.
DAMIAN PENNEY
LIVERPOOL



CYBERNOID II

To gain infinite lives simply type NECRONOMICON on the title screen.
TONY COOPER
WORTHING

NAVY MOVES

The access code for Part Two is 786169
CHRIS BAKER
POLEGATE

KICK OFF

When playing against a friend and you score a goal, shout 'YEAH!' really loudly and punch the air. This is very effective for upsetting your opponent - well it works against my dad!
PAUL ROSS
STUBBINGTON

CHARIOTS OF WRATH

A simple tip to gain infinite lives. When first instructed to press the fire button, push the joystick forward. On the first breakout screen you have to collect all the diamonds to complete the screen. On the second breakout screen there are some dummy diamonds, so don't worry about collecting them all.
JAMES GOWE,
LONDON

ary of both these levels.

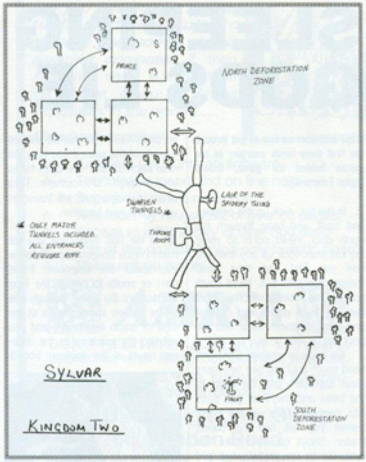
In order to climb down you will need a lantern, which will be dropped by a dwarf that you need to kill by the entrance. Go down into the caverns and head south. In the second cave you will find the spider's lair. You need to get inside to pick up a rope which you will need when you come to exit. Just off the next large cave to the south, you will find the Throne Room which contains the prince's crown.

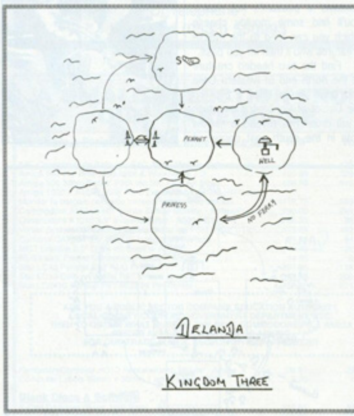
Now go back and give the crown to the prince who will give you some gold in return, then go back through the caves to their southern exit and in this landscape you should find a molehill which contains the Belt of Lung Capacity which, when combined with poison darts, makes the blowpipe a very useful weapon. Go south and you'll find a fountain in southern Sylvar which will transport you to the next kingdom.

3. DELANDA

There are five islands on Delanda, and you have the advantage of being able to see them in the distance. Note that every time you shoot a seagull it will drop two gold coins. The first thing to do is approach the ferryman and take the ferry to the southern isle (island 2). Kill one of the druids and pick up his golden sickle and then take it to the mistletoe tree at the centre of the island, where you can get some mistletoe. Find the dying peasant and see what he has to say.

Go to the west through the two stones (island three - which requires the mistletoe for transport) and go to the ferryman at the south and be transported to the fourth island. Here you will meet the princess who will give you a ring which will prove useful later on in the game. You will also find here the Sandals of Water Walking which allow you to walk to any island you wish. Go east to island five and find the vial which you need to take back to the dying peasant - it will fill up with blood. Then go back to island five and the well will transport you to the next island.





SPHERICAL

Here are some codes for you.

Password for Level 9 = RADAGAST
19 = YARMAK
39 = ORCSLAYER
59 = SKYFIRE
75 = MIRGAL

And in two player mode:
Password for Level 9 = GHANIMA
19 = GLIEP
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SWORD OF SODAN

How to get very nearly, but not quite, to the end of the hack and slash-em-up – after all, you didn't expect us to give the whole game away did you?

Level 1 – At the city's gates.
To defeat the four guards, wait until they are pointing their staffs in the air and then jump into them doing over-head chops. Do this for all four guards and you should get through with most of your strength left.

Level 2 – Between the city's walls.
When the first spike goes down, jump over it, and jump again as soon as you land. Wait for the spike to go down again and jump over that one and jump again as soon as you land. Kill the guard using the same method as in level one – at the end of the level, make sure you don't stand between the clumps of spikes because they'll kill you instantly and the wizard will take great delight in laughing in your face.

Level 3 – In the city streets.
To kill the axemen, duck and low chop. Keep moving forward and using this method and you shouldn't get hit. Jump over the barrels and at the end of the level keep overhead chopping the giant and you should decapitate him without taking a hit.

Level 4 – In the heart of the forest.
When you meet the two thugs, just duck and low chop and they should jump into your sword. At the end of the level use one power shield when fighting the scorpions because to kill them you must hit the claw on the end of their tails.

Level 5 – In the land of the dead.
Jump over the rolling heads and duck and low chop to kill the zombies. Watch out for zombie spit when you are standing up. The zombies gradually need to take more hits to destroy them as you go through the level.

Level 6 – The foyer of the castle craggamoor.
There are two holes on this level, so watch out! To defeat the wizard use one shield and jump into him and use a combination of overhead chops and low chops. Keep doing this until he dies them walk off and onto the next level.

Level 7 – Descend the stairs.
Walk forward a couple of steps then stand still and overhead chop, you should kill both the birds. Once they are dead, walk forward and as soon as you get the wizard into view use a magic zapper to kill him off and proceed to the next level.

Level 8 – In a passage deep.
Jump over fireballs as they come. Keep walking forward on this level. Keep an eye on the top of the screen as blocks come down to crush you. When the fireballs stop, spikes will come to take their place so watch out for these as they kill you instantly. Keep moving at all times! When you come to the lava, there are three blocks you must jump onto to get past it. Timing is critical, so learn the pattern of movement of the blocks. Once over, there are more fireballs to jump and acid drops from the ceiling to avoid. Take your time dodging the acid drops or you'll get hit. At the end of the level you must hit the teeth of the statue to get past.

Level 9 – In the catacombs.
Walk forward and kill the four birds by overhead chopping them. When you come to the caterpillar-like creature, jump through it. Get the potion and you will be riding the beast. Walk backwards through the caterpillar and the beast will eat it and will be able to jump. Then walk forward. When you get trapped between two walls, water will start to rise, keep on jumping and the water will go back down and the walls will disappear. Keep on walking and you will come to a red wall, stab the red lines and when the rock on the top of the wall flies off – overhead chop it. You'll have to hit the rock three times and the wall will disappear, and carry you through to the next level.

Level 10 – The foyer of the castle craggamoor.
Just the same as level 6.

Level 11 – At the wizard's tower.
Destroy the dragon-like creature by low chopping it in the gut. When you get to the wizard jump into him and overhead chop. Keep doing this and you will be safe from his magic. After about eight chops the wizard will fire tons of blue fireballs at you...
Mark Beckett, Plymouth.

COR!

50 SMACKEROONIES!

All of us would like some free software, so here's how to earn yourself a voucher worth £50 to spend on those latest block bustin' games. If you have any maps, tips or pokes for recent games, then get them written down and sent to: Gamebusters, Amiga Format, 4, Queen St, Bath. BA1 1EJ. This month's lucky winners are: Gary crook, James Gower and Mark Lawrence

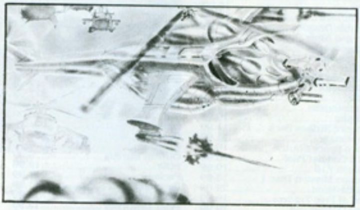
SILKWORM

There are two versions of Silkworm on release. The only difference is that they have different cheat modes because one magazine revealed the cheat mode before the game was even released! (The plonkers!)

Version one - hold down the help key and keep it pressed while pressing fire on the joystick to start the game. You will now have infinite lives and can move through the levels by pressing the numeric keys 1 to 0 and the minus key.

Version two - if you have the latest version of the game then attempting the above will reveal the following message: 'Congratulations, you have found the cheat mode....unfortunately it has been ZZAPPED!

If this happens go to the control selection page and type 'scrap 28' and then start the game. The effect is the same as above.
DAN MARCHANT
LONDON



THE KRISTAL

Try these tips and make your life a little easier.

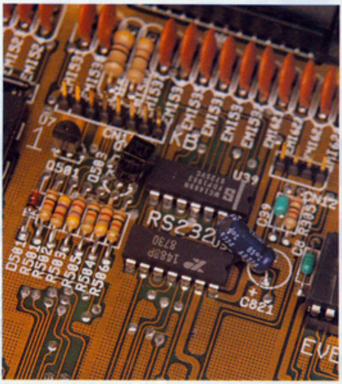
1. When fighting an opponent, move to the left of the screen and keep your finger on the fire button and the joystick up (head chops), and you should defeat him within minutes.

2. Defeat all the opponents in each planet then save the game (it will make it easy for you to complete the game) e.g. each time you start a new game load the saved game and then you don't have to fight any more opponents.

3. Here are the items that you can take from some of the characters.

Kring = 25 Skringles
Princess = Ring of Belz
Gloop = Invitation
Beggar = Pommel
Hippy = Flow
Strell Noto = 25 Skringles
Aunt Polly = 5 Multipep tabs
Mervin = Transmitter
CHRIS WEST
EGHAM

LEARNING TO LIVE WITH COMPUTERS



As the computer ceases to be a privilege for the few and begins to truly become widely accessible, **DAMIEN NOONAN** investigates the computer in the classroom and the Amiga's role in education.

Somewhere in Dorset, 9.30 on a rainy September morning. A crucial breakthrough is about to be made in the field of computer-controlled robotics. As the programmers look on, a small, wheeled robot inches with great precision across a smooth floor. It pauses exactly on a marked station, then turns through an angle of 90 degrees: repeats this manoeuvre three times to come to rest precisely where it started.

The experiment is declared a success, and excitedly the programmers discuss their achievement, the delight obvious on their faces. Although this is no world first, no giant step for mankind, to them the satisfaction is intense: because these programmers are six or seven years old, working in a primary school, and they have just written a computer program that works. Many of us would be pleased to be able to do the same: but can't, because we were educated in the days when, unless you were being trained to work with these arcane devices, knowledge of them was considered obscure and irrelevant.

> **"You wouldn't teach children without telling them how to use a pencil and paper, would you? Not just yet, at least"**

Nowadays, even more so than ▸



▸ with school dinners, it really is chips with everything. Every school in the country by now possesses or has access to a computer: most Universities and places of further education could probably not function without them. Kenneth Baker's infamous National Curriculum has a place for them. The educational market is now possibly one of the key tar-



gets for computer sales. But the important thing is this: that as the educators themselves become educated, they are beginning to realise that the computer is not just a box of tricks, a buzzword, or a messianic changer of the whole of society. Rather, it is a cross between a useful tool and a useful medium, just like a pencil and a piece of paper. And you wouldn't teach children without telling them how to use a pencil and paper, would you? Not just yet, at least…

Many of us know that computers are used in schools. Fewer of us know exactly how they are used, or why. The aim of this article is to discover why computers are used in education, from the basics of primary school level right up to the most advanced research at Universities: and to find out where the Amiga fits in.

One thing that almost everyone knows is that the BBC, now

"How long will it be before the BBC loses its grip, and will another machine ever replace it in a position of monopoly?"

an aged machine, has over the last ten years or so enjoyed a unique stranglehold over schools, and the primary school market in particular. Having been dominated by the dear old Beeb for so long, this market has developed an inherent conservatism, much of which is software dependent. At the same time as, and often in tandem with, the producers of BBC software, teachers have learnt what they need to best bring out children's abilities and ▸

BUT IS IT ART?

These pictures were produced on an Amiga B2000 by a student at an art college in Leeds. Paul Cowen is studying for a Higher Diploma in Graphics at one of an increasing number of colleges in this country that allow students to work on computers, and choose the Amiga to do it with.

The illustrations, with their interesting and original watercolour-like style, were all produced using *Photon Paint*. Paul was honoured with high commendation for these pictures in a competition run by Macmillan books, and his pictures were displayed as part of an exhibition at the ICA earlier this year: a distinction made all the more remarkable by the fact that they were the first computer-generated pictures ever to be entered in the competition.

Paul's more recent work in a different style has been comissioned for use by a skateboard magazine. We wish him well with future projects.





develop their computer literacy as well. A good deal of this software has become 'industry-standard' for teachers, so much so that buying of software is centralised at LEAs and training courses are geared towards particular programs. Beating the Beeb will not be easy. But the reasons are, in many ways, far from being retrogressive or reactionary.

The positive side is that teachers would be reluctant to move away from the BBC because so much of the software written for it has proved so very useful. It has been developed in response to the learning of the educators to provide much more than even the early proponents of the computer in education would have imagined. The most fascinating thing about computers in education is how much more you can do with them than anyone ever realised...



■ The Archimedes is already making inroads into schools.

The field of education is, for simplicity's sake, usually broken down into three main areas: primary (roughly five to eleven years of age), secondary (twelve to sixteen) and further education (colleges, universities and the like). This tends to gloss over certain other areas, such as preschool and special needs, but you can't have the world in five pages.

The primary school scene is in many ways the most interesting. The software developed for use with the BBC has already set the pace, with some remarkable ideas. The impression we often get of 'educational software' is of weak variations on painting, spelling and sums: generally about as much fun as times tables ever were. None at all.

Primary school children can hope in the near future to have a computer in each classroom, but currently they tend to be lucky to use one for a few hours each week. The children normally work in groups of two or three, which fits in well with the current educational trend for discussion and mutual problem-solving within small groups. A logical problem in an adventure game, for instance, can provide a good opportunity for a discussion amongst classmates and hopefully a reasoned conclusion: although heated arguments aren't necessarily seen as a bad thing, so long as they stop short of one kid flushing another's head down the toilet.

The general rule of thumb seems to be that you should never underestimate the adaptability of children. The major uses of a computer in a typical primary school are surprisingly advanced, even from the age of five. A prime example is Logo, a simple programming language which even

THE HEART OF THE MACHINE



■ The 4D heart scan system.

Surely the most advanced work currently being undertaken using the Amiga is a project to develop a 4D ultrasonic imaging system to display a complete picture of the human heart. This work is being carried out at Imperial College, London, a university famous for scientific research.

The innovators behind the project are software expert Doctor Habib Talhami, Harold Wilson, developer of the ultrasound transducer used in the project, and a cardiologist from a leading London hospital. In real time the system will scan and build an image of the heart from ultrasound signals. The whole thing will be ready for use in many thousands of hospitals within two or three years, replacing older 2D systems for analysis of the structure of the heart and of blood-flow within it. The Amiga is being used for the benefits brought by its graphic capabilities and the PC compatibility provided by an AT Bridgeboard.

BEATING THE BEEB

Even now, schools are buying BBC Masters, but 8-bit technology is now way past its sell-by date. The two questions are simply how long will it be before the BBC loses its grip, and will another machine ever replace it in a position of monopoly? Whether any single machine will ever gain the dominance of the BBC is very much in doubt. Currently, there are four main contenders in the race to bring less-than-primitive technology into the classroom: RM, with the Nimbus, Acorn with the Archimedes A3000, Apple with the Macintosh, and, of course, Commodore. The Atari ST has never really been a competitor in this field.

Acorn still has one major ace hidden up its corporate sleeve: the name BBC. The A3000 is already being touted to schools as "the new BBC micro" and "the latest and most powerful addition to the BBC family", taking full advantage of schools' familiarity with the Acorn range. The Archimedes is already proving to have a high profile: "top of the computer wish list for both primary and secondary schools", according to Acorn. And at least one teacher I spoke to already perceived the A3000 as being a transition phase from the old BBC to that desired Archie. The sound of wool coming firmly down over eyes was almost painful.

One thing that the Archimedes and the Amiga both share is a BBC emulator, intended to smooth the path of upgrades for Beeb-owning schools. The Beebulator for the Amiga was developed by Ariadne with Commodore's encouragement and support as part of their developing strategy to sell to schools. Although it is a remarkably fine product, the problem with it is that it is unable to run any BBC software that is not written in Basic, which really means everything that is of any use.

So how to compete? Well, one point for competition is obviously price. Currently, a BBC Master with colour monitor will cost a school in the region of £550: a similar A3000, around £700. The Amiga A500 is available to schools for £599.

But price is not the only factor in competition. What counts is essentially the same group of factors that influence any other potential computer buyer: performance for the price, flexibility and the availability of decent software.

The Amiga is already years ahead in many of the areas that schools will use computers for, such as paint packages, computer-aided design, word-processing and DTP. It allows technical knowledge to be developed using a whole range of different operating systems and programming languages. It can offer opportunity for innovation in such esoteric subjects as 3D animation and video. And with the push from Commodore to develop in areas of traditional primary school computing support, such as the Amiga Logo, it can take the Beeb on its own ground.



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▸ the youngest children use to control a robot 'turtle', to learn the concepts of geometry and to print 'Spirograph'-like patterns.

Graphics and paint packages allow the children the fun of colourful creativity: while word-processors, with fonts that resemble the teacher's clear, unjoined-up handwriting, mean that they can print their efforts and illustrate them to make picture-books.

"The computer does not work best when it is stashed away... instead, it is made available in ways that are relevant"

Some word-processors are capable of organising pieces of a story into an interactive adventure game, and adventure games themselves are very popular, specially written to provide a variety of linguistic, logical and mathematical problems to provide a challenge for the chidren.

Databases are another significant use, but once the relatively mundane subjects of information storage and retrieval are covered, the possibilities for stretching the imagination and encouraging interpretive thought are a shade limited. Which is far from true of other software. Perhaps you have to see it to believe it, but programs in use in the primary schools are constantly entertaining and pleasing, and the satisfaction as well as learning derived by the children is obvious. When the Amiga is supported by programs of this standard, preferably as direct translations of packages that teachers are already familiar with, it will stand a good chance.

The primary school is a unique case, because of the way in which it demands programs that have been developed specifically to meet its needs. It is specific, and conceptual. By the time children reach secondary school, their knowledge has developed to the extent where the Amiga in its familiar guise with its familiar applications is at the right level: the skills which the children are expected to develop are essentially those which they will be expected to use when they reach the outside world. Less conceptual, more practical. The computer, as it is in many training situation, is ▸

THE PRIMARY PROJECT

One major focus for the attempts Commodore is making to break into the educational market with the Amiga is, quite naturally, that stronghold of the BBC, the primary school. There are roughly 25,000 primary schools in this country, which represents a substantial market, catering for children up to the age of eleven. The problem for Commodore is simply how to gain the confidence of this market. Their answer is the Primary Project.

The Project has supplied Amiga 500s free or at cut-down prices to about 20 schools across the country. The idea is that teachers can then begin to appreciate the benefits of this machine, and offer their criticisms as well as a certain amount of praise. Any shortcomings the machine has are likely to be in the amount of software available which complements or reproduces things already in use on another computer, so Commodore will use the criticisms to direct its further exploits into developing software to respond to the needs of the market.

The positive reactions, meanwhile, will no doubt be used as the basis for a campaign to encourage other schools to buy the Amiga, following the successes of their counterparts with the machine. Eventually, a report on the findings will be published, but currently the Project, which has been running since the beginning of the year, seems to have made good headway. Responses from teachers have been enthusiastic: the Amiga has been used mainly with paint packages such as *DPaint II* and word-processors such as *Kind Words*, which also includes basic DTP.

Teachers have said that the Amiga forms a great discussion-point – discussion being one of the keywords of modern primary education – and has encouraged expression and enthusiasm in the children. The Primary Project has been extended to cover more schools, and looks set to be a great success. More news is expected soon.



■ The Amiga in use during the Primary Project.

essentially a simulator. Wordprocessors are becoming commonplace as a tool in schools, and desktop publishing systems are rapidly making a place for themselves. An obvious use for a computer is in the art department, to exploit the potential for entirely new ideas beyond the capability of normal media and the flexibility and relative cheapness of a virtual medium: if it doesn't really exist, it can't cost money. Desktop video and animation work are a logical next step, and again the Amiga is more than flexible enough to support these more advanced roles.

One lesson that is slowly being learnt from the fine example set by primary schools is that the computer does not serve best when it is stashed away and compartmentalised. The awareness of secondary schools that their pupils are much closer to the job market has tended to encourage them in the belief that computer studies should be a separate, serious subject, carried out in a room set aside for just that topic, where the pupils can learn applicable programming skills. Instead, the rational approach, encouraged by the relative cheapness and availability of modern machines, is to make computers available to all pupils in ways that are relevant to the individual subject under study.

"We are now already into a phase where the daily use of computers is becoming the norm."

Peter Talbot



■ The Amiga is already a common sight in art and design departments around the country.

Meanwhile, in universities, polytechnics and further education colleges the situation again reverts to an extreme. In this context, the uses of the computer are very often in pioneering research and development roles, so the work they are being made to do is entirely unique and very advanced. Here, quite naturally, the Amiga is making its mark in many of the ways that you would expect from its performance in fields of an advanced nature.

In particular its strengths in the graphics department and in multitasking make it ideal for the presentation of graphics-based information, as in the Imperial College heart project. The variety of operating systems gives it another strength, being exploited by such projects as the UNIX networking environment currently in use at Nottingham University. Many, many colleges now use the Amiga for the teaching of art and design, as Paul Cowen's work illustrates so well.

Sooner or later, the technology has to hit the fan. The users of computing in education are currently way ahead of their masters as they apply the solutions they have developed in response to their own needs. The new National Curriculum attempts to grasp the concept of Information Technology, but so far seems to fail to quite comprehend it. As the government comes under fire for slashing the IT budget from £13.8 million to £8.28 million, they fight back with plans to train all teachers in computer use and claims that they intend to direct money away from Computer Studies use and retarget it towards individual sectors of the National Curriculum.

Are they getting the message that the computer is not an object to be studied, but a tool to be used, and an increasingly unavoidable one at that? Let's hope so. We shall see. ■

PETER TALBOT



■ Peter Talbot celebrates an Olympic deal with Tessa Sanderson.

"In this business, you don't get two chances... We're going to be very aggressive" says Peter Talbot, National Sales Manager for Local Government and Education at Commodore UK. He doesn't mean, however, that he plans to physically threaten potential buyers into taking the Amiga: he simply has a positive attitude.

When he joined Commodore in June 1987, the firm had no idea who would want to buy their machines. After a six-month evaluation, they realised that the education market was one of the most volatile markets, and decided to concentrate their energies there. With the imminent demise of the BBC, there was "a need for something to fill the vacuum."

In April '88 a three-year plan, the Education Initiative, was launched to sell the Amiga, concentrating on three areas. Firstly, to found a network of educationally aware dealers: secondly, to ensure favourable pricing: and thirdly, to encourage the development of any software that would be needed, after discussion with LEAs and schools.

Although plans for the increasing decentralisation of power are leading to a more flexible market as 'independent schools' come into existence – "schools are now so much more commercially aware" – generally buying decisions are made at County level. A number of counties, for instance Lothian and Somerset, already order the Amiga in quantity. The Amiga is often bought for art and design roles, and though the DES itself has acknowledged the machine's performance and value in this field, the government will not provide money for Amiga as long as they see it as being relevant to just one discipline.

And for the future? Well, rather than find a gimmick, like the BBC association which made Acorn's machine a standard, Commodore will continue to "make it clearer to more people" how good the Amiga is by "doing more of what we do now". We are told to expect exciting announcements soon, at the PC Show. "Watch this space," says Peter.

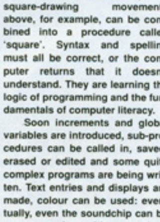
ROBOTS, TURTLES AND SUBROUTINES

Logo is one of the most fascinating examples of the use of the computer in primary schools. Currently under development for the Amiga, it is a complete programming language originally implemented on the BBC.

Logo introduces children to the concept of program instructions by allowing them to order a 'turtle' to move around the screen. Alternatively, this turtle and its ways can be made more visual by using a small robot turtle which moves around the floor. Initially, the instructions it will receive are to turn by a certain angle and then proceed a certain number of steps. On the computer screen a line is drawn by the turtle as he moves, so before long the turtle is drawing simple shapes: for instance, he might be ordered to walk forward ten steps then turn 90 degrees. If this is repeated three times, he has drawn a square.

Already, the concepts introduced in a totally painless way to the children are fundamental maths. Vectors and angles are all learnt about by five and six year olds in such a way that they grasp the concept rather than simply learn the name. But before long, the children are learning to combine operations into procedures and define a procedure by its own name: our four separate square-drawing movements above, for example, can be combined into a procedure called 'square'. Syntax and spelling must all be correct, or the computer returns that it doesn't understand. They are learning the logic of programming and the fundamentals of computer literacy.

Soon increments and global variables are introduced, sub-procedures can be called in, saved, erased or edited and some quite complex programs are being written. Text entries and displays are made, colour can be used: eventually, even the soundchip can be programmed, with envelope parameters set to create voices and voices of varying pitch assigned to be played from the computer keyboard. All in all, Logo is remarkable, adventurous and enjoyable. Maybe you wouldn't expect children under ten to be able to program: but they can, and they enjoy it too.



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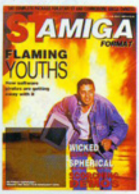
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FORMAT LETTERS

Yet again, a few of your many letters manage to escape the Origami treatment. All new offerings are welcomed by BOB at 4 Queen Street, Bath, BA1 1 EJ. Write now!

CANNON'S BROADSIDE

I have just had the underwhelming misfortune of reading your second attempt at producing an amiga only publication, what a load of old dross

I realise your probably a bunch of spotty adolescents trying to earn as much money as you can with the barest minimum of effort because it shows in the publication, as you came from ace you must be used to catering for deadheads and children whose blinkered outlook can see no further than the latest game.

If I wanted all the latest game reviews i would buy ace or the one but i do not want games reviews i want insight into the complex versatile machine i own issue 2 is just the ace comic with amiga format printed on the front

What's the matter with you, you won't last long by padding out the magazine with double page game reviews and adverts and printing those letters you get from those who seem to be devoid of a conventional education i mean this months workbench you filled nigh two pages with questions that could have been answered simply by reading the supplied manual and the tips came from those who have read the supplied manual.

The letters page seems to be solely for those wishing to display their prowess as sycophants and the coverdisc's demo was a straight port over from a 48K spectrum i hope!.

All in all a waste of £2.95 this month seems to me that you have bitten off more than you can chew just like "your amiga" magazine a very informative magazine with the right balance until it went monthly now it's a 5th rate ace clone only 45p dearer and as "amiga computing" has just strapped a disc to the front cover and it has the right balance looks like your going to lose out unless you shape up a bit sharpish.

CHRIS CANNON
ROMFORD, ESSEX

I have printed this letter with all the grammatical and punctuation errors left in. Mr Cannon is obviously correct about at least one of our readers being "devoid of a conventional education". We usually like to finish letter replies with a gag: we'd be happy to fit yours personally.

SPEAK TO ME

Does anyone remember the speech synthesizer kit in Issue 8 of *ST/Amiga Format?* You do! Did you find the box didn't work when you finished building it? Not me. Being a PCB inspector it worked first time. My question is does anyone have any decent programs for it? I am a bit short on know how. So could you print some in the magazine, as I'm sure many people would agree the synth is a cheap but excellent piece of hardware.

DEAN WATSON,
ANDOVER, HANTS

We would love to print them, so send some in if you've got them.

FOUL PLAY?

Being a keen computer user and a keen football fan, I was delighted to see two companies, Anco and Microprose, release football games on the Amiga. Undecided as to which to buy, I turned to your reviews of the games concerned in the August issue. It was obvious which one you preferred and so I purchased *Kick Off* from your mail order department.

A quick read of the rather lightweight instruction pamphlet whetted my appetite and so I booted the program up. After a few games it was obvious, to my disappointment, that this is not the amazing simulation that both your reviewer and Anco claim. There now follows a list of my complaints:

1. The presentation is very user-unfriendly from the start. For example, in a single game the user is referred to as 'Joystick 1'. Surely an option for the user to define his own name would be better?

2. Having a large roster of referees with different characteristics is a good idea, but surely part of this option is that you can note the style of each ref and plan your tactics accordingly before each game. If, however, you lose the toss before the match, the computer does not inform you of the game's referee.

3. Some of the referees are very extreme, sending a player off after two fouls. This means that in a long match many players will be sent off. In one match that I played, all ten of the computer's outfield men had been given their marching orders by the second half! I can't name the ref as I lost the toss (see point 2). Needless to say, I had to abandon the match when the computer was awarded a throw in and there wasn't a player to take it!

4. The, in places, inaccurate manual states that when a penalty is taken, the directional arrow "freezes giving the keeper a ... fighting chance to save." In one-player mode this does not happen when the computer takes a penalty. Presumably this means that the player does not have a chance of saving it.

5. The extremely high speeds at which the top level players play the game renders the scanner redundant when it would be most useful – taking your eyes off the field to look at the scanner results in at best a loss of possession. And in the league option, the colours of the West German, Brazilian and Dutch teams have ▶

P R I Z E W I N N E R

LET'S DO THE TIME WARP

My main reason for writing is the infuriating review-date/release-date time/space vortex. In my case the world spins something like this:

1 See fantastic review in September issue of mag.
2 Ring to order game.
3 Told game is not out for at least a month.
4 Wait a month, game not out yet.
5 See even fabbo-er review of new game in October issue of mag. Decide to get that instead.
6 Go back to 2.
7 Move month on one and continue indefinitely.

The result is severe frustration, and a seriously retarded software collection.

MARTIN THOMSON
WINSFORD, CHESHIRE

Due to a hole in the space-time continuum I am afraid this letter was received 23 years before it was written and clearly does not refer to the current situation. Your T-shirt and binder will be dispatched via Tardis and reach you some time in the year 2037.

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the same effect on the status panel, rendering it useless.

6. The player under human control often, in my version at least, does sliding tackles which are beyond my control. When your player is sent crashing to the ground, the computer leaves him under your control, thus leaving you out of the action. And as for the strikers, it seems pot luck whether they actually shoot straight or miss the goal by miles (the much more likely result).

7. Finally the sound is, as you hint at with your rating, awful. The crowd cheering is a two second sample looped, and the sampled voice announcing a penalty sounds as though it belongs to a man who just discovered his wife and kids died! And why do the players line up before starting the second half?

To conclude, I am very disappointed with *Kick Off*. It is hardly the 'accurate soccer simulation' Anco claim (ever heard of the offside rule, Anco? *Kick Off's* players haven't) and it didn't deserve a 91% rating or a Format Gold award. If I had paid the full £20 for the game, I would feel very bitter and cheated indeed.

Apart from that review, *Amiga Format* is great (especially the disk). Keep up the good work!

DANIEL SILVER
WOODFORD GREEN, ESSEX

Cue Bob...cue Bob...cue bloody Bob. "Errrrrr, quite remarkable that performance by Daniel Silver, the man they're all calling errrrr Daniel Silver. So, Emlyn, what happened next?"

"Errrrrm, I think Daniel complained about lots of things that are quirks of the game and most of us enjoy"

"That's nearly right, can you give me a little more?"

"Errrrrrrrrrrrrm, was he completely wrong in point two, because it does show you the refs name?"

"Absolutely right, Emlyn. Quite, quite remarkable."

"Oooooooh, aaaaaaaagh, yesssssss, well done team."

"I'm sure we'll get letters about this one, Em."

IT IS AN EX-COPIER

I have a lot of sympathy with programmers who spend time and money, not to say a considerable amount of expertise only to get their software stolen. However there is another side to this which has recently been brought home to me very forcibly.

Although I've had a computer for three years I am new to the Amiga so I thought I'd better get a reliable disk copier to back-up my software. I looked at all the ads in the Amiga mags and it seemed that *X-Copy* was the favourite, so I sent off my £29 and duly received the program.

It is certainly fast and copes with a lot of disks though by no means all. However, that is not my beef. A few days later I bought some PD disks from a local shop for £2 each and on one was... you've guessed it, *X-Copy*, and Version 2.0 at that, while the one I paid £29 for was Version 1.3!

Now it seems to me that if the computer industry wishes to get the public on its side in this piracy debate they are going about it the wrong way. I feel that I've been well and truly ripped off and it will be a hell of a long time before I shed any more tears for these guys. The software industry whether in the retail or the distributing side needs to get its act together for a bit of self regulating.

As a CPC owner I bought a great deal of software especially utilities and on the odd occasion I wrote to the software house concerned for advice, often I wouldn't even get a reply, though there are some honourable exceptions to this, Nemesis for one. Somebody has made a fortune recycling my unreturned SAEs!

FRED BALL
BLACKPOOL, LANCS

There is no such thing as a free lunch or a free piece of software. Your condemnation of the whole software industry because one program, and a potential piracy device at that, appeared on a PD disk is a little over the top.

LAME GAMES

I was looking through some of my older computer mags the other day and whilst reading *ST/Amiga Format* Issue 9, I discovered a part I did not see when I first read the mag. It is on Page 7 and entitled 'The only way is up' and briefly said that machines will be all 1 megabyte soon and that 512K is not enough memory HA HA B****Y HA (sorry but that's the way I feel). I don't know about you but I have had my Amiga for six months and have not seen a game really up to the Amiga's standards.

Nor have I seen a game that justifies a 20 or 25 quid price tag, sorry to tell a lie I have *Falcon* and *Kristal* and they were shoved up to 30 quid. I know that you're going to say – read the reviews, and I have. Take for example *View to a Kill*. I read the review in several mags and they were good so I paid £20 for it. I could not get past the first level as it was pathetically hard and now it's sitting collecting dust. I mean £20 is a lot of money just to sit on a shelf. If I wanted to show people that I am stupid with money I would invite them to watch me wipe my arse with a £20 note.

The reviews should be Sound, Graphics, Playability, Lastability and can you get past the first level or not. I mean the software companies spend all their time on graphics and f**k up the game play yet speccy owners get c****y graphics and excellent game play AND only pay a tenner.

I know your mag is respectable but it is also a place where your customers can air their views so please print my letter and not say "nah! don't worry about this letter throw it away and print Mr Blogg's letter who only asks a silly thing like "where has Super Heroes Inc gone".

Thanks for listening to what I had to say, just one more thing to say to everybody – computing and buying games is like a drug addiction. It's a thing you wished you never got into but now you've got one you can't do without it.

WAYNE HANSFORD
POOLE, DORSET

PS Where has Super Heroes Inc gone?

The 'doubling' of ST/Amiga Format *into* Amiga Format *and* ST Format, *caused an identity crisis in the two superheroes, who can now be found busking outside the Embankment tube station.*

PAW SPECTRUM, POOR AMIGA

I have recently upgraded from the humble Spectrum to an Amiga 500. I would like to know if there is an equivalent to the *Professional Adventure Writer (PAW)* for the Amiga and what would be the price. If not, could you tell me about any adventure writer and where I could obtain one.

MARK CHEVERTON
SHEFFIELD, YORKSHIRE

The only adventure creator we know of at the moment is Talespin *from Microdeal, costing £29.95. Tel: 0726 68020 or write to Microdeal, PO Box 68, St Austell, Cornwall PL25 4YB. Other creators like* PAW *from Gilsoft and* GAC (Graphic Adventure Creator) *from Incentive have not been converted and don't look likely to be unless enough adventurers demand it.*

BUT SERIOUSLY FOLKS

I would like to see the sort of 'serious' application which would be of use to most users of the Amiga, such as a simple database program, included on the cover disk. I emphasise 'be of use' because I do not think that the majority of your users will find the *DoTil* utility very useful.

MC ELLIOTT
WORKINGTON, CUMBRIA

One user's useful utility is another user's useless utility – it depends on what you use the Amiga for. However, there are plans to run a database fairly soon.

PD BLUES

Two years ago, I decided to offer my services to the well know CBM user group known as ICPUG. I became the PD Amicus copier for the group and during the time that I did this, was inundated with requests/complaints with regards to the fact that many progs on the disks required some knowledge of the CLI before they would run correctly. Because of the problems that seemed to arise from these disks, I decided to start up my own Amiga PD/shareware library, offering disks that needed as little knowledge as possible to run the programs contained on them.

I am the official UK distributor of Jeff White's TBAG and Merlin software disks, (with Jeff's permission) and distribute the North Star group's 'Exceller 8' magazine on disk. Also, unlike many, I do not have repeated programs on different groups disks.

My copying fees range from 50 pence to £1, with many copied free. I have yet to show any profit, as it should be.

Now, on to my reason for writing to your readers. In the last year I have noticed that an extremely large amount of Amiga owners, some that have even got their disk collections from me, are setting up PD libraries. This is fine, in principle.

What annoys me is that some new PD groups are selling PD/shareware progs for prices that are well and truly ridiculous, to the new and unsuspecting, Amiga owner.

This goes totally against the principles of PD/shareware progs and I feel that new Amiganauts deserve to be warned about this and should be put straight about the unwarranted prices that some new PD groups are asking.

I understand the need for the main commercial companies charging slightly more than the private PD groups, they do after

all, have to make a living. What is wrong, in my opinion anyway, is the prices that some individuals are charging. I have seen anything from a not unreasonable £1 per copy, to a ridiculous £3!

If these sort of charges continue then a lot of the authors who quite happily offer their hard work to the PD/shareware community will soon stop doing so. Why, after all, should they give their programmes away to people like myself, only to see them offered at a later date for ridiculously high prices.

I respectfully ask the cowboys to stop and consider what the implications of their overcharging are. It is certain that if this continues, the supply of PD/shareware for the Amiga is going to dry up.

So to those Amiganuts who, like myself, run PD/libraries on a non profit-making basis, I say keep up the good work, but to the get-rich brigade I say, stop trying to screw the Amiga loving community NOW.

RAY BURT-FROST
SOUTHAMPTON, HANTS

NO INTELLECT, NO INTEREST

I must say that I am slightly disappointed with issue one of *Amiga Format*. Games Reviews – It's nice to have so many games reviewed but you're not giving enough space for each one. By 'not enough space' I mean that the pictures are too large and there isn't enough writing for each. For example, a whole page was given over to a *Kick Off* players' guide and yet the review was only 60 lines long. OK, it's 66 including Graphics and Sound but half of the space in the review was an oversized picture and the title.

ST/Amiga Format always gave a double page for a Format Gold game. This included handy boxes for each section, not just Graphics and Sound. *Circus Attractions*, for example, received 56% and yet it got more space than *Kick Off* (91%). *Circus Attractions* had another annoying oversized picture at the top. *Journey* (82%) only got just over this amount of space for the entire review.

You also reviewed 16 games, which only covered 14 pages. In my view, you should give a double page for all Format Gold games, a page for games of over 70% and half a page for the rest. You would have needed only 17 pages using this method. If people write in and say that that's too much room, it's only just over an eighth of the magazine.

Games Ratings. What is the point of an intellect rating? We've always survived with a few sentences about it before. And why get rid of lasting interest? I got the impression that ACE was obsessed with it. It's not related to addiction as you pointed out in your reviews. For example, read the last few sentences of *Mayday Squad*, *Gunship*, *Rampage* and *Skweek* and compare that with the addiction rating.

Why not use Graphics, Sound, Addiction and Lasting Interest? It gives a good impression of the game overall. For example, *New Zealand Story* is very addictive, but I got bored of it after several days (the demo). Faery Tale is almost the reverse of this. Also, I'd like to know why you didn't include the sound for *Journey* just because there wasn't any on an unexpanded A500. Many A500 owners now have one megabyte since the prices have fallen so much. Oh, and bring back the sliding scale!

D DRODGE
LYRINGTON, HANTS

Over to Reviews Editor, Andy Smith...

Generally, we do try to give as much space as possible to the better games but unfortunately things don't always work out as hoped. The pages are planned and allocated during the month and therefore we don't always know at the start what is going to come in. Games often arrive at our offices late in the schedule when there's little space left to give to them – that's just the way things go sometimes.

The Intellect rating is designed to enable readers to check, at a glance, just how much thought power is going to be needed to play the game. To play some games properly can take a lot of effort on the player's part (Balance Of Power springs immediately to mind) and we feel this is something the reader should be made aware of. As for lasting interest, we are giving the matter serious thought and may well change the rating system.

All of the games are played on a basic A500 simply because it's the basic machine and we must therefore cater for people who don't have and can't afford upgrades.

HEAR, HEAR, NOT SEE

Just a general letter, mainly about your coverdisk. It is the best out at the moment, though the only things I like on it at the moment are the playable level of a new game and some of the utilities. The workbench hacks are a bit of a waste of disk space.

I think it could be improved by putting on music and music demos. These entertain more than your swinging frog demo, which is nice but I only watched it twice.

The still pictures prove my point even more. No one will look at a picture for more than 30 seconds, no matter how good it is. A good tune though (especially with graphics – even better if you can participate eg Demons are Forever by Doc and Sunrider's latest demo) could last five minutes and you might listen to it any number of times if it's good. Music and Graphics are better than twice the number of graphics – sound is sorely lacking from your disk.

KARL DRINKWATER
MANCHESTER

PS Yours is still the best Amiga mag in most respects!

Uncanny, isn't it? No sooner do you ask for a music demo on the disk, than glory be and save us, hey presto, one appears. And yes, there will be more. I don't agree about the graphics and animations though, they are nice to look at, can be used as part of tutorials, they inspire creativity and most importantly – people like them.

PS Thank you, it's much appreciated. Are you one of the 'sycophants' Chris Cannon was writing about? We don't think so...

ITALIAN'S NEUTRAL

I recently bought *The Duel:Test Drive 2* for my Amiga 500. The game is brilliant and I really enjoy it but I found that sometimes the car I was driving would lose a gear, the engine only revving as if in neutral when I changed into this gear. When I crashed however, the broken gear was restored. Sometimes it is even more than 1 gear that goes...I have had as many as three broken gears on the Ferrari, left with only 1st and 5th. That's not much use to anyone!

STEPHEN COWIE
ANGUS, SCOTLAND

Typical shoddy European workmanship. Get yourself a nice British car like the Lotus, even if it does have an engine noise like a lawnmower on a cattle grid.

US USER'S UK YUK!

As an American based in the Midlands, I have come to love the great programs put out by English and European software companies like Psygnosis and the Bitmap brothers, but not all is perfect in paradise. Here are the facts: I have an American A500, dual disk drives and an A501 1 Meg memory expansion. I do not mind some squashed screens due to the system being NTSC based, but I am enraged with the fact that several pieces of software will not work on an expanded US or UK Amiga. So, after complaining directly to several UK and foreign suppliers, I forward this list of programs that will not work on a US expanded Amiga:

Dragon's Lair, Readysoft Inc, 1 Meg UK version
Gauntlet II, US Gold, UK version
Operation Wolf, Ocean, UK version
Batman, Ocean, UK version
R-Type, Electric Dreams, UK version

Keep up the great work *Amiga Format*, and yes, everything you have offered on your disks works fine!

KEVIN S CHRISTLEY
BRACKLEY, NORTHANTS

INFINITE MONKEYS

After reading the August issue of *Amiga Format* and the tips on *Lords of the Rising Sun* from Simon Liu, I remembered reading almost exactly the same thing, word perfect, in another mag. Simon Liu must have great psychic powers.

K PHILLIPS
MUNDESLEY, NORFOLK

Plagiarism is one of the most pitiful things. Perhaps Simon Liu sat an infinite number of monkeys at an infinite number of typewriters until they produced the Lords of the Rising Sun tips? Who knows? Simon Liu does, so perhaps he would care to explain. We look forward to receiving his letter.

MARKED SERIOUS

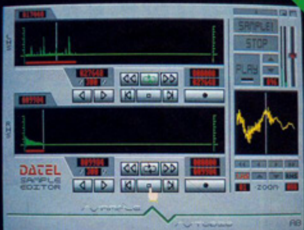
Serious reviews – why not give each product a mark out of 10? I'm sure many people would like to compare packages. The reviews are excellent though.

D DRODGE
LYRINGTON, HANTS

Marks out of 10 seem terribly arbitrary for serious reviews because they differ so much. There are so many considerations of price, documentation, intended use and so on that affect a buying decision that a rating out of 10 is too simplistic. In order to sum up these complex issues, a full review is required. After all, we are talking about software and hardware that often costs more than £100, not something you should buy on the strength of one mark. ■

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GURU's MEDITATION

CULTURE CORNER

And now a poem

(printed solely at Mr Smith's behest)

Englebert VonTooter posessed a computer
Of quality exceedingly fine.
In yellow pyjamas, he sat with two llamas
And guzzled down raspberry wine.

But each day at noon, with a boiled egg and spoon
He would stare in despair at the screen.
For then he would wonder, why every blunder
Would appear in a naff magazine.

Until one fine day, a magnificent day
As he nibbled his toffee ice-cream,
It appeared like magic, and now life wasn't tragic:
He had found the top of the team.

"Amiga Format!" Englebert cried,
"It's shown me the way to success!
And as I sit here with my blue frothy beer,
I can forget all the pain and the stress.

"Yes every month, as I munch down my lunch,
I can learn from that wonderful 'zine."
It's true to say, enterprises pay:
He's a millionaire on the scene.

Young folk out there, heed the words he once aired
Amiga Format's the way to success!
Look through the pages, take them in stages:
For computer entertainment it's best!

By The Honourable Miss GILLIAN MARGARET MCCAFFERTY (21).

• Send us a fiver if you don't want any more of these printed.

CAPTAIN WHINGE

"...pish and nonsense it's probably the best operating system ever devised, personally I've never managed to crash it, not once, ever, at all, and even if it did crash I've got every single guru meditation number memorised and know exactly what to do about it, take 000000238967428365(*&*$%)(*_*^ it's a doddle, just stick a finger in your left ear and do back flips while singing last year's budget deficit figures to the theme tune from Neighbours and everything's hunky-dorey in no time, and as for complaints that it's too difficult to understand Amiga DOS, if some people aren't prepared to have the chip manual implant surgically inserted in their cranial cavity, what do they expect, so I finished my lecture with a quick summary of the joys of..."

OH DEARY, DEARY ME

Medium-sized-bodge count for Issue Two: two. Grovelling apologies for saying on Previews that *Fallen Angel* was from Rainbow Arts when it is in fact from Screen 7. Humble atonement as well for stating that *Rick Dangerous* was £29.99 when it is in fact £24.95.

It is also a matter of great regret that the word 'suppository' was not inserted into this issue.

THE THIRD ONLY FUNNY COMPUTER JOKE...EVER... EXCEPT FOR THE LAST TWO

IBM have designed a new computer called the Ronald Reagan. It has no memory and no colon.

• All complaints to ANDREW COONEY from WOKINGHAM for that.

THE LADS GAVE 110%, JOHN

A cunning plot has resulted in the Future Publishing Kick Off International Squad receiving a defeat at the hands of the Electronic Arts All Stars. The squad consisted of Smith, Noonan, Wade and Campbell (from New Computer Express, for it is he).

All four arrived on time for the contest but there was no sign of the EA team. After waiting for a while a strategic decision was taken to retire to the nearby hostelry by the name of Hatchetts and imbibe vesselfuls of the fluid served there, known as beer. One hour later the EA team arrived, distinctly sober and raring to go.

The result, sadly, was inevitable: a defeat by 4 games to 3, with one match drawn. Take our advice: don't drink and Kick Off, it can severely damage the ego. A re-match is being organised, revenge will be had.



To prove we are not bad losers, here is the victorious (and sober, matey, the cheating ratbags) Electronic Arts team. From left to right; Rupert Easterbrook, John Roberts, Scott Probin and Kevin Shrapnell.

COMPETITION WINNERS ■ Here are the lucky winners of the Gauntlet II compo run in issue 1. The lucky winner of one stonking Gauntlet II coin-op is Alastair Kent from Ravenshead, Nottingham. The 20 runners-up, who will receive a US Gold sweatshirt and game of their choice are: Neil Burrows, Rainhill, Merseyside; R Tonge, Kew, Richmond; Jo Potts, Bowdon, Cheshire; L Carresmith, Bournville, Birmingham; Neil Pearson, Tarring, West Sussex; Michael Taylor, Solihull, West Midlands; AM Kancidrowski, Barnoldswick, Lancs; Richard Walker, Sedgley, West Midlands; Stephen Hughes, Wellswood, Torquay; Gary Walker, Middleton, Leeds; R Johnson, Kinloss, Morayshire; James Pearson, Leafield, Oxford; Richard Jones, Wembley, Middlesex; Clive Evans, Penn, West Midlands; Nicholas Barnett, Calcot, Berkshire; Neil Baxter, Bury St Edmunds, Suffolk; Alex Ridge, Kirby Cross, Essex; Glen Martin, Grimsby, South Humberside; Nigel Impey, Higham Ferrers, Northants; Stephen Vickerstaff, Bournemouth.

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